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## **A SOCIAL SCIENCES**

AA	PHILOSOPHY AND RELIGION
AB	HISTORY
AC	ARCHAEOLOGY, ANTHROPOLOGY, ETHNOLOGY
AD	POLITICAL SCIENCES
AE	MANAGEMENT, ADMINISTRATION AND CLERICAL WORK
AF	DOCUMENTATION, LIBRARIANSHIP, WORK WITH INFORMATION
AG	LEGAL SCIENCES
AH	ECONOMICS
AI	LINGUISTICS
AJ	LITERATURE, MASS MEDIA, AUDIO-VISUAL ACTIVITIES
AK	SPORT AND LEISURE TIME ACTIVITIES
AL	ART, ARCHITECTURE, CULTURAL HERITAGE
AM	PEDAGOGY AND EDUCATION
AN	PSYCHOLOGY
AO	SOCIOLOGY, DEMOGRAPHY
AP	MUNICIPAL, REGIONAL AND TRANSPORTATION PLANNING
AQ	SAFETY AND HEALTH PROTECTION, SAFETY IN OPERATING MACHINERY

## MODELING CONTINGENCY GOVERNANCE FOR EFFECTIVENESS IMPLEMENTATION OF THE RULES

<sup>a</sup>MOHAMMAD OGHBAEI JAZANI, <sup>b</sup>AKBAR ETEBARIAN,  
<sup>c</sup>MEHRABAN HADI PEYKANI

<sup>a</sup>. *Phd Student of Department of Public Management, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran*

<sup>b</sup>. *Associate Professor of Department of Public Management, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran*

<sup>c</sup>. *Assistant Professor of Department of Public Management, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran*

*Email: <sup>a</sup>oghabei.moh.phd@gmail.com, <sup>b</sup>Etebarian@ymail.com, <sup>c</sup>mehrbn.hdi.peykani@gmail.com*

**Abstract:** Government affairs requires comprehensive policies and laws so that they can effectively implement it in the light of the macroeconomic management of the country. In the early nineties and then determine the governance paradigm with the introduction of indicators of good governance, both cooperative and private sector to run the country's next government. For better handling of all three parts according to its own policies and rules, are required to rule in accordance with the conditions of implementation of the law, which is known to governance contingency. The aim of the present study is designed to Effectiveness Implementation governance model contingency rules on governance and the role of Max and upgrade three parts to this type of governance in the country.

**Key words:** Governance Contingency, Public Sector, Cooperative Sector, Private Sector and Effectiveness Implementation

### 1. Introduction

Implementation by studying literature review and Experts in different countries can be realized this was a significant problem in law enforcement the problem is that the concept of governance and its implementation has not been properly explained. Discussion on the run governance known as governance contingency; By combining literature at home and abroad, including three dimensions is essential Which can accept any policy change components of its capacity and its own policy to be coordinated. Effective implementation of a policy variable represents the research criteria In fact, the effects of the three dimensions of governance in the implementation of effective contingency policies examined the principle of law. In the new paradigm governance of the idea of "governance contingency" to the time, place and specific areas of implementation of each policy is used. Another aspect of this type of governance for effective implementation of the policy requires that the legitimacy and capacity of its associated policy making and apply the rule of three is required. So a general Conclusions can be effective implementation public policy and rules governance according to law depends on its specific definition.

Governance contingency requirements public policy making such as capacity, the capacity of rationality and legitimacy capacity as predictor variables in this study is. When Implemented effectively, and ensure that the public accepted the framers of that kind are the people's representatives Attract and proper implementation of the law enforcers also hopes to make a positive impact. Perhaps the most important element in the implementation of any policy rule three parts considered (Gunther, & .Diamond, 2013). But effective implementation of integrated governance based on capacity addition of these variables require comprehensive underway The study of the components provided in the implementation of the policy is used by Calista in 1995. So the main subject of this study, lack of

effective implementation of laws and why it using the dimensions contingency model governance.

### 2. Research Context

Kettel in his book called concepts of governance, governance structure and activities of state institutions and procedures to get the job done and knows (Kettle, 2009). Governance, at least in the case of transactions in the market and sub-markets for public services should be run. Governance means the integrity of the government new public management and governance and management prelude private parts and it is normal for parts of the state and commercial cooperation creates incentives (Ansell and Maxwell, 2009). Governance means good governance. Union leaders new government is liberal democracy. The command system of governance as interdependence among political actors enforcement community. Product governance interactive combination between the policies of the government and society. Governance as self-organizing networks, network development and political ownership defined (Lapalombara, 2007) Farazmand in 2000, knows the importance of international standards governance as well as the fact that in reality the principles and guidelines for good governance and increasingly are value-laden shows (DeGeer, 2010). Good condition and properly implemented and problems with the monitoring mechanism to assess the policy context provided (Winter, 2009, 288). Capacity rationalization is the optimal forms of navigation and how the various actors on the basis of individual or collective wisdom and reasoning which can Make a difference in the world around them (Backstrand, 2015). Multiple goals governance to change the behavior of individuals within communities contingency cause substantial environmental sustainability of this particular type of governance rules. In the contingency of governor's powers and responsibilities are different (Haas, 2011). Governance approach contingency arrangement of governance suggests that many actors involved. The cast includes actors, private sector actors and actresses public institutions are legitimate and effective decisions in a role that environmental policy (Elmore, 2014). In other words, decisions and has the capacity to fulfill a legitimate need for capacity is not actually determined the legitimacy of the government and divided the nation and will be unenforceable and never not be mutually acceptable and this is the spirit of the current law. Capacity legitimacy of the people's ability to accept policy says and refers to the entirety of policy formulation and implementation (Kronsell, 2014). In this capacity, the ability of policy in its acceptance by the public and other institutions expressed. In other words, the legitimacy of a policy vacuum that fills the executive and the legislature, the executive and the beneficiaries will reach its goal of implementing specific policies (Sabatier, 2009) Effective implementation of the many factors involved, which is mainly affected by two types of inter-organizational and intra-organizational. In models (top-down) is usually Implemented by internal factors but the models (bottom-up) run more external factors affecting the organization. Sabatier and Mazmanyán the implementation of a combination of two types of model are Calista effective implementation both within the organization are influenced by three factors: networks, influential officials and field implementation and external factors such as: public opinion, powerful people and institutions interpreter knows (Gunther & Diamond 2013).

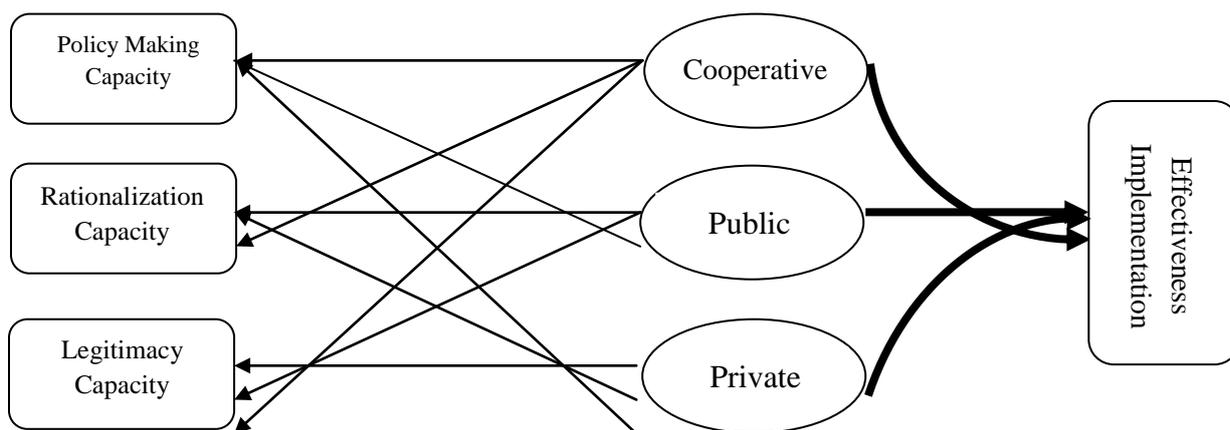


Figure 1. The contingency governance model

**3. Method**

In this sense, the present study applied research. Other classification, according to the study research method is descriptive - survey and correlation analysis was performed. Descriptive research is to describe what he does. The characteristics of this type of research can be Focusing on the present, past information is needed to identify the current situation and to suggest ways to improve it in the future. One of the survey research methods, Delphi method (Borg and Gall, 2003, 217). The procedure for the identification and confirmation of the final parameters of dependent variables

(criteria) and independent variables (predictor) is used for the preparation and verification of the questionnaire. Then the questions about the future status indicators derived from the subject under investigation is formulated addressing In this study, concepts, dimensions, elements and indicators are reflected in management books and items of the questionnaire was developed based on these indicators. The validity of the questionnaire is proven. In order to determine the reliability of the questionnaire Cronbach's alpha coefficient was used. According to Table 1, the amount equal to 82.4% respectively, which indicates the high reliability.

Table 1. Cronbach's alpha (reliability of the questionnaire)

Cronbach's alpha coefficients	Number of Questions	Concept and research dimensions
0.843	16	Public sector
0.714	16	Cooperative sector
0.768	16	Private sector
0.815	12	Effective implementation
0.824	60	Total (governance contingency)

**4. Research Aims**

It can be said with regard to the arrangements proposed in this study and practical goals were trying to reach it.

- Modelling to Effectiveness Implementation contingency governance rules.
- The effect of the public sector on the effective implementation of laws.
- The cooperative sector on effective implementation of laws.

- The private sectors on effective implementation of laws.

**5. Results**

To analyze the data collected from the questionnaires should be the first step toward determining the distribution of data in population And secondly to determine the type of tests With regard to the distribution of data in order to answer the research questions and the research necessary to achieve the goals. To check the current status of predictor variables and the criterion of one-sample t-test was used.

Table 2. One-sample T-test results for the predictor variables and the criterion

Average standard error of	standard deviation	mean	N	number of variables
0.2284	2.8976	3.246	40	Public sector
0.8509	3.3642	2.264	40	cooperative sector
0.1146	3.6433	2.869	40	Private sector
0.2376	3.1242	2.886	40	Effective implementation

Table 3. One-sample T-test results for the predictor variables and the criterion

Test Value = 3					
95% Confidence interval	Mean difference	significance	Degrees of freedom	T	Research variables

Upper limit	Lower limit					
0.6952	0.3476	0.4256	0.057	39	4.678	Public sector
-0.3512	-0.6427	-0.4522	0.042	39	3.425	cooperative sector
-0.1244	-0.2846	-0.1452	0.035	39	3.852	Private sector
-0.1785	-0.5417	-0.3012	0.032	39	5.448	Effective implementation

In the public sector policy-making capacity within acceptable limits and capacities of rationality and legitimacy are lower than the average for legislation. Capacity in the cooperative sector at an acceptable level of legitimacy and capacity of policy-making and rationality is lower than the average for legislation. In the private sector capacity within acceptable limits and capacities of policy rationality and legitimacy are lower than the average for legislation. The effective implementation of laws impact of

factors affecting officials and arena Implemented at an acceptable level and the impact of component Networks, public opinion, there are powerful individuals and institutions interpreter lower than the average. To approve the proposed model, the effect of not changing the effective implementation of the contingency governance by law and the stepwise multiple linear regression was measured.

Table 4 .shows the results of regression model between the predictor variables and criteria dimensions

Input predictor variables	correlation coefficient	coefficient of determination	Adjusted coefficient	standard deviation error	Durbin-Watson
PMC <sub>S</sub> - 1	0.457	0.324	0.321	0.5281	
PMC <sub>N</sub> - 2	0.507	0.386	0.383	0.5077	
PMC <sub>P</sub> - 3	0.683	0.417	0.412	0.4763	
RC <sub>S</sub> - 4	0.711	0.546	0.449	0.4502	
RC <sub>N</sub> - 5	0.765	0.502	0.496	0.4266	1.785
RC <sub>P</sub> - 6	0.859	0.641	0.638	0.3974	
LC <sub>S</sub> - 7	0.874	0.689	0.682	0.3812	
LC <sub>N</sub> - 8	0.903	0.795	0.788	0.3549	
LC <sub>P</sub> - 9	0.924	0.847	0.816	0.3467	

Table 5. Impact Equation T test result dimensions predictor variables on criterion variables

Model	Non-standard coefficient		Standard coefficient	T	significance
	B	Std.Error	Beta		
Constant	0.745	0.168		2.656	0.019
PMC <sub>S</sub> - 9	0.362	0.065	0.192	4.387	0.000
PMC <sub>N</sub> - 9	0.324	0.061	0.187	3.358	0.000
PMC <sub>P</sub> - 9	0.308	0.058	0.184	3.473	0.000
RC <sub>S</sub> - 9	0.295	0.057	0.174	2.751	0.005
RC <sub>N</sub> - 9	0.284	0.052	0.169	2.846	0.003
RC <sub>P</sub> - 9	0.276	0.046	0.169	3.342	0.000
LC <sub>S</sub> - 9	0.259	0.044	0.152	2.769	0.004
LC <sub>N</sub> - 9	0.248	0.039	0.144	2.917	0.002
LC <sub>P</sub> - 9	0.236	0.032	0.138	3.576	0.000

The above table reflects the significance of the regression. Thus, according to statistics the remaining F distribution is normal. Level of less than 0.05 is significant for all variables that represent a direct linear relationship between the independent variables and effective implementation of the rules. The Durbin-Watson from 1.5 to 2.5, which is the sign of remaining independent. Given the significant level of value and (F) the normal distribution of residuals. In other words, one can say with 95% confidence. The model provided by the predictor variables are well able to express variables and criteria proposed model is approved. 0.847 is the coefficient of determination indicates that the 84.7% of the variation in the effective implementation of laws, under the impact of contingency governance is nine. With each unit increase in capacity for policy making, rationality and legitimacy in the triple governance, 0.236 of the effectiveness of the implementation of the contingency governance is added.

## 6. Discussion

Cooperative sector networks (institutions) people-centered and then the private sector has the lowest impact on the effective

implementation of legislation. The main challenge the legitimacy of the cooperative sector with the capacity of the sector. People oriented sectors based on interactions with external organizations and people work try not to rely on the public and private sectors through the interaction between individual and group-based utilities move. The adoption of this action by groups and other institutions often faced with challenges. Lack of capacity and investment policy as well as economic rationality and Administrative capacity also leads to a lack of efficiency and effectiveness in the implementation of the rules provided in this section. In the private sector the main problem in the future, lack of appropriate policies and laws are integrated. The lack of legislative capacity can cause the legal gaps in this sector. This legal gap caused by the economic corruption. Because the economic rationality of this section is discussed much more than other capacities As a result of negative interactions between the private sector and other sectors, especially the public sector. Financial and administrative corruption in his country in recent years indicates a huge gap in the private sector.

## 7. Conclusion

In this research governance model designed for different rules and the sharing of market and public institutions and people, time sensitive benefit from their help. The implementation of policies and macroeconomic policies if there is public support and private sector, Implemented in the bottom According to the detailed policies and accounts above will not lead to the desired result. It is concluded with a capacity of three contingency governance model for public policy making, rationality and legitimacy in the country is to view the effectiveness of enforcement and people with regulator in the formulation of policies and effective implementation of laws across the country to be used.

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## EVENTS MANAGEMENT IN SERVICE ORGANIZATIONS APPROACHING HIGH RELIABILITY ORGANIZATIONS

<sup>a</sup>EBRAHIM IRANDOOST, <sup>b</sup>SAIED MEHDI ALVANI,  
<sup>c</sup>GOLAMREZA MEAMARZADEH

<sup>a</sup> human resources. PhD Management graduated, management and accounting faculty, Qazvin Islamic Azad Branch, (Corresponding Author)

<sup>b</sup> full professor, management and accounting faculty, Qazvin Islamic Azad branch.

<sup>c</sup>Associate Professor, management and accounting faculty, Qazvin Islamic Azad

Corresponding Author Email: <sup>a</sup> Ebrahimirandoost@gmail.com  
<sup>b</sup> research.m@qiau.ac.ir, <sup>c</sup> Branch.gmemar@gmail.com

**Abstract:** This paper aims to find new methods in managing events using the characteristics of high reliability organizations such as airline companies, nuclear power plants and controlling aero traffic in service organizations. Existing characteristics in high reliability organizations are first proposed in this research then required activities for implanting the characteristics of a high reliability organization are inferred in electricity companies as a service organization. The tools of collecting data were questionnaires and they were conducted through surveying in statistical population of senior managers of Iran's electricity distribution companies and interviewing the elites of these companies. The methodology is descriptive exploratory and in terms of goal, it is applied research.

**Keywords:** events, service organization, electricity Distribution Company, high reliability organization

### 1. Introduction

Simultaneously with technological and social developments and following that equipping organizations with complicated technologies, complicated organizations have been created as a complicated system. Based on the theories of complicated systems, any system which is complicated and its components are tightly coupled to each other, will face events in normal flow of its operation. It is resulted by lack of control and perceiving processes which happen. In another word it is derived from uncontrollability and unpredictability of these events in complicated systems (Perrow, 1984). To prevent events and cope with them in case of emerging, different theories have been proposed. One of them is the theory of high reliability organization (HRO). This paper aims to use mentioned characteristics and methods in service organizations such as the companies of distributing electricity, water, gas and telephone. The case study of this paper includes electricity distribution companies as a public and large extent service company that is responsible for distributing electrical energy all around the country among electricity consumers and in order to achieve high reliability in the performance of these companies. To simplify high reliability organization in this research, it is mentioned as HRO.

#### 1.1 The concepts and theories

There are two theories for coping with events in the field of organizations that work with high risk technologies: 1- normal events theory, 2- high reliability theory (Wieck, 1999). Normal events theory is based in the attempt of Charles Perrow in 1984 to interpret his perception from Three Mile Island disaster in a more complete formula. Perrow argued that each system whose components are coupled to each other tightly and complicated interaction ally, will have exactly events in normal flow of operations. Perrow's argument is based on three principles; first is that people make mistake, even in nuclear power plants, second is that big events almost always start from very small events, third is that many errors are arisen from organizations more than technology. These three principles are still appropriate up to now (Perrow, 1984). The second theory is high reliability. This theory belongs to organizations which have complicated technology and work in stressful environments so that there will be disaster for them in case of events (Roberts, 1990). If the performance of organization can be shown with reliability, it will

be high reliability organization (Ericksen and Dyer, 2004). The samples of these organizations include nuclear power plants, the centers of controlling aero traffic and aircraft carriers. According to the theory of HRO, the characteristics and methods which are used in these organizations can be utilized to cope with unexpected events in other organizations (Wieck, 1999).

#### 1.2 Events management

Anything which leads to interrupt giving services to the customers of service organizations is called events. These events can be resulted by equipment improper function, human error or natural disasters such as earthquake and flood. Events management includes the activities which are used to prevent control and reduce the events in such organizations.

#### 1.3 Reliability

Reliability of a system is the possibility of safe and faultless operation for specific time according to the current and predetermined conditions. Reliability is usually used for ensuring the proper functioning of a piece or generally a set of factors (system) during specific time and period (Faqih et al., 2007).

#### 1.4 The events and reliability in electricity distribution companies

Electricity distribution companies are responsible for distributing electrical energy to almost 30 million of consumers including domestic, business, public, industrial and agricultural consumers all around Iran. This operation duty includes maintaining and repairing electricity networks, selling energy, getting consumed cost and accepting new recruits of electricity. Any kind of event which interfere in this operation or duty and it is also unexpected is called events. In this paper, the events are only considered that are created for the networks of electricity distribution and lead to electricity interruption. The indexes of reliability in these companies will be measured according to standard number 1366-1998 of IEEE that is the reference for developing electricity standards. These indexes include:

- 1-System average interruption frequency index (SAIFI): this index shows that how many electricity interruptions have been averagely experienced by an electricity consumer within reporting period. Whatever the value of this index is higher, it indicates that the network is weak reliable and the interruption number of this system consumers is more.
- 2-System average interruption duration index (SAIDI): this index shows average duration that each study consumer doesn't have access to electrical energy. Whatever this index is lower, it shows higher reliability of network in terms of blackout duration for each electricity consumer.
- 3-Customer average interruption duration index (CAIDI): this index shows average required time for subscribers' service recovery and the difference between this index and first one is that instead of all consumers, only consumers who have had one experience of blackout will be considered in this index.
- 4-Average service availability index (ASAI): this index shows reliability from the perspective of blackout, as this index is closer to one, the reliability will be higher in study network.
- 5-Customers experiencing multiple interruptions (CEMIN): this index shows the number of consumers that have had more than n times of blackout out of whole consumers. Whatever this index is lower, it shows higher reliability in study network.

#### 1.5 High reliability organization (HRO)

HROs are some types of organizations that are designed in order to cope with complicated environments. The processes which can be found in HROs either provide the possibility of reliability performance or the possibility of adaptive learning (Holman,

2005). These organizations work in a social, political environment without overlooking, a rich environment of potential for error and mistake, the place where a scale of consequences prevents learning through experience and use complicated technology to avoid failure in their complicated processes (Rochlin, 1993). Primary characteristics of HROs are concentrated on complete elimination of error and mistake and lack of trial and error in learning (Wieck, 1987). The characteristics below are mentioned for HROs by Social theorists: (Sutcliffe, 2011)

- 1-Preoccupation with failure
- 2-Reluctance to simplify interpretations
- 3-Sensitivity to operations
- 4-Commitment to resilience
- 5-Deference to expertise

These five characteristics cause that organization has a permanent awareness for coping with events. This awareness is called mindfulness. Mindfulness is the process of active attention to new things, conducting this put people in present time and

make them sensitive to the context and perspective (Langer, 1989). Work mindfulness is related to interpreting weak signs in organization (Vaughan, 1986). This means that mindful organization feels even weak signs of error in performance of some sections in organization and react to them because it is believed that in organizations which use complicated technology, organization units are severely attached to each other or in another word are coupled to each other and error in one section of organizations will be rapidly transmitted to other units and a small error will turn to bigger ones cascading and leads to events, this is the feature of high technology organizations (Perrow, 1984). Ultimately the five mentioned characteristics in HROs cause organizations' mindfulness and through this mindfulness, the organization will be capable of discovering and predicting unexpected events and finally coping with them. These hierarchy of activities increases operation reliability and creates a high reliability organization. Generally, it can be said that high reliability organizations aren't capable of being without errors, but such organizations will have this capability that created errors cannot disable them. The figure below shows this process which is intellectual infrastructure of high reliability.

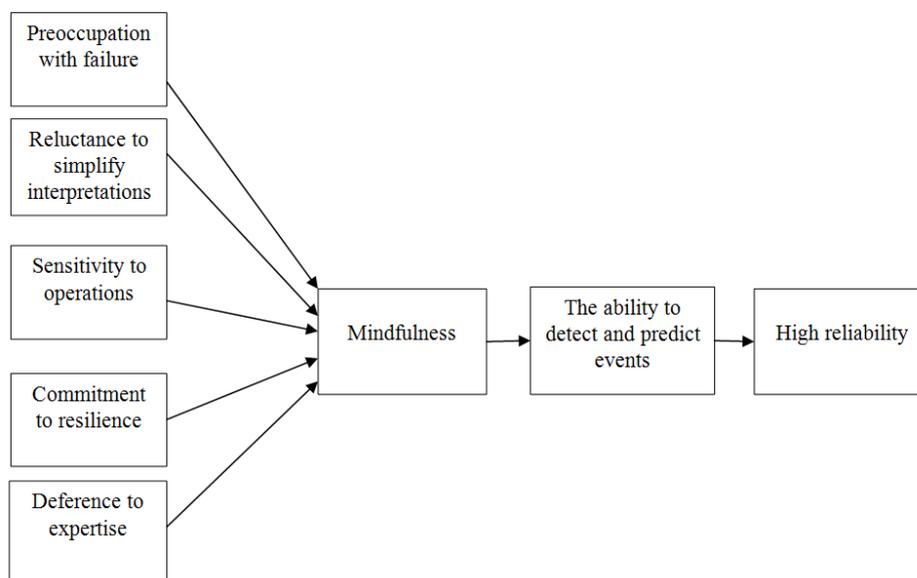


Figure 1- intellectual infrastructures for high reliability (Wieck, 1999)

### 1.6 General characteristics of HROs

#### 1-Preoccupation with failure:

In most of organizations when organization succeeds in its performance, its managers usually attribute this success to themselves or at least their organization instead of chance. The confident of organization members to their abilities, managers' skills and existing programs and methods of organization will be more. They trust this method. Assuming that success shows their ability, people get floated in their self-satisfaction, ignorance and habits that this pattern often leads to neglecting the mistakes and weaknesses or organization and consequently increases the possibility of human error. In very effective HROs, self-satisfaction is severely avoided, it is assumed that each current success decreases the possibility of future success (Wieck, 1999). The success isn't noticed in such these organizations but the thing which is paid attention is failure in the operation of organization. What factors lead to failure? Investigating failure in previous operations and failure in similar organizations are the factors that are most noticed in HROs. In another word the preoccupation of these organizations is failure in operation not success. The failures are rare events in such organizations because failure in them will be defined as disaster. Dealing with each one of errors will be conducted as some holes in the health

of system and the beginning of future failures so effective HROs either encourage reporting errors or they have the best use of each error which is reported.

#### 2-Reluctance to simplify interpretations:

Most of organizations simplify complicated duties that is when a sign of error is observed in system, one specific person or section of organization will be responsible to solve it and the rest of organization have nothing to do with it while simplifications are potentially dangerous for HROs because they limit either cautious actions of people or the number of unexpected consequences that they predict. Simplification increases the possibility of probable surprise. Whatever the organization is more accurate and neglect fewer data, it will be surprised less. Traditional organizations tend to overlook this question that what they have overlooked (Pearson and Mitroff, 1992). While effective HROs notice this question and investigate more about what they don't know. To avoid simplification deception, HROs promote complicity and assume that a complicated system should exist for feeling a complicated context and they believe that all human make mistakes and sceptics improve the reliability (Wieck, 1999).

### 3-Sensitivity to operations:

Operational personnel who are at the forefront of operations are specifically noticed in HROs, their comments are continuously taken. The managers of this organization focus on forefront (the place where working is really conducted) (Wieck, 2003). It is believed in these HROs that people are operational that in order to run the programs do all improvising works, handling and heaving (Wieck, 2003). Therefore, these people have to be aware of all organization operations and its levels. In another word big picture of organization operation should exist in the mind of operational personnel. This awareness is because in case of observing error whatever small in one section of organization, its effect should be perceived in whole organization and error transmission to other sections and their accumulation that is the feature of complicated organizations should be avoided and ultimately those errors should be modified. Another problem is lack of complete trust to technology that is done to prevent what is called automation surprise (Miller and Woods, 1997). Whatever developed, technology cannot be replace human and in the path of operations, the works shouldn't be done all by systems without continues monitoring.

### 4-Commitment to resilience:

The word resilience is often used for returning to the past (Dadashpur and Adeli, 2015). This word is more used in HROs because they don't have any other choices except real time response to the events. Effective HROs tend to have either anticipation or flexibility (Wildavsky, 1991). Anticipation refers to prediction and prevention potential dangers before having a damage while flexibility refers to the capacity of coping with unexpected dangers after they were revealed and learning for returning to the initial status. Unlike effective HROs, traditional organizations hardly tend to go toward one or both. Traditional organizations usually go toward predicting expected events, risk aversion, planned defend against predictable dangers while HROs show more attention to unpredictable dangers. Not only returning to initial statuses before errors but also flexibility is coping with events in the moment. The best HROs don't wait for error to deal with before response, instead they get prepared for possible surprise by expanding public knowledge and technical facilities, general order on resources (Wildavsky, 1991). It is obvious that HROs accept unavailability of errors. The knowledge of HROs consists of the reality of human error, doubtful technology and limited expertise (Vaughan, 1996). To cope with this reality, they either notice error prevention or error inhibition (Wieck, 2003). Ultimately flexibility comes as doubt on the applicability of past action, that is an action which used to be answered in the past might not always answer. Unlike many other organizations, HROs are able to either believe or doubt in past action simultaneously (Wieck, 1969).

### 5-Deference to expertise:

Effective HROs don't usually have any failure not because of existing discipline in their organization but because of their indiscipline that is official hierarchy isn't always effective in decision making but sometimes lack of particular hierarchy when moment decision making is required is useful in making a correct decision. In another word, each disciplined hierarchy can strengthen the errors especially when they occur near peak (Turner, 1978).

In case of delaying in decision making, smaller errors will be more likely to expand, accumulate and interact and start serious consequences. To cope such conditions, HROs obtain flexibility by organized anarchy (Rasmussen and Batstone, 1989). This indiscipline and ditching hierarchy introduces a kind of decision making that is known in management science as garbage can. Severe environmental changes cause that organizations move toward the structure of garbage can (Cohen and March, 1972). The problems, solutions, decision makers and opportunity selection in a garbage can depend on current flows inside system. It means that making decision isn't predicted but it is immediate.

Making decision here will be given to trained and experienced people instead of managers, the solutions are linked to the problems and decision makers are linked to selections that is by their common presence on that very moment (March and Olsen 1986). Of course this indiscipline isn't predicted only for critical situations but it is also valid for other times of organizational structure and this anarchy of organizational structure will be facilitated by the loosening of hierarchy restrictions using organizational mindful system in HROs (Wieck, 1999). Finally, in the event of unexpected circumstances in HROs, decision making of a person who is experienced and knowledgeable in the emerged subject is superior to making decision of a person who lacks this expertise although he has lower position organizationally.

## 2. Research history

Wieck, Sutcliff and Ostafold (1999) discussed the concept of high reliability organization (HRO) in order to have attitude to the organization's efficiency under erosive conditions as well as anarchy conditions, uncertainty and high risk and accompanied it with the theory of high reliability (Wieck, 1999). HROs theory has been used up to now in many service organizations to increase reliability in the performance such as firefighting organization (Anderson, 2013) and health services organization of America government (Vogus and Sutcliff, 2007) and Education Department of America (Reynolds and Stringfield, 2006) and Energy Department of America (B &W Pantex 200) and Urban Railway Organization in the UK (Bigley and Roberts, 2001).

In his research named "the theory of high reliability organization as an entry for operation risk management in project management", Werner (2012) uses the concept of team and education while using the HROs theory for managing operational risk projects (Werner, 2012).

Frankel et al (2006) in investigation of high reliability in medical and health care organizations, have identified the main tools of achieving high reliability as fairness and justice-oriented culture, team behavior and leadership employment (leadership informal communication with components of the organization) (Frankel et al, 2006). To achieve high reliability, the organizations have to make relationship among these three concepts. Common required activities to achieve high reliability in these organizations included team work, job rotation, permanent training, knowledge management, creating trust and talent management. These researches have shown that using the characteristics of HROs in mentioned service organizations in related performances, high reliability can be achieved. Considering research history, 16 activities which are used in HROs are identified that include the ability of high interaction, high transmission speed, high learning ability, calmness, job rotation, knowledge management, learning, security, trust, teamwork, talent management, organized anarchy, experience survival, loyalty, work hardness and the dignity of human resources. These activities can meet the characteristics of HRO.

- 1- Learning ability means educability and having string mind for learning in organization personnel.
- 2- High transmission speed is required characteristic for rapid decision making while events occur.
- 3- Calmness after decision making which is necessary for decision making and its stability.
- 4- The ability of high interaction with others and the skill of working with each other are required for the employees in HRO.
- 5- Job rotation or displacement in different jobs of organization is required for acquiring multi skills.
- 6- Knowledge management includes production, distribution and sharing knowledge in organization.
- 7- Organizational learning includes initial and while working training continuously.
- 8- Security for sending the reports of errors and mistakes for employees and no punishment even in case of their failure.

- 9- Team work is as coordination and the work of specific people with each other for particular subjects.  
 10- Talent management means discovering, growing and encouraging people who are talented in management fields.  
 11- Organized anarchy means in case of emerging crisis, decision making is on elites not organizational hierarchy.  
 12- Trust means that each person in organization is able to ensure the other one doesn't work to his detriment.  
 13- Experience survival means people who leave organization, transmit their experience to others.  
 14- Loyalty means after retirement, organization refer to employees and help them.

15- Work hardness means early completion of work in organization or early retirement from the organization in case of personnel's request

16- The dignity of employees who have left the organization means glorifying honoring them and providing them relative rights and benefits

Considering obtained activities above from research literature, model below is proposed by research to provide the characteristics of high reliability organization:

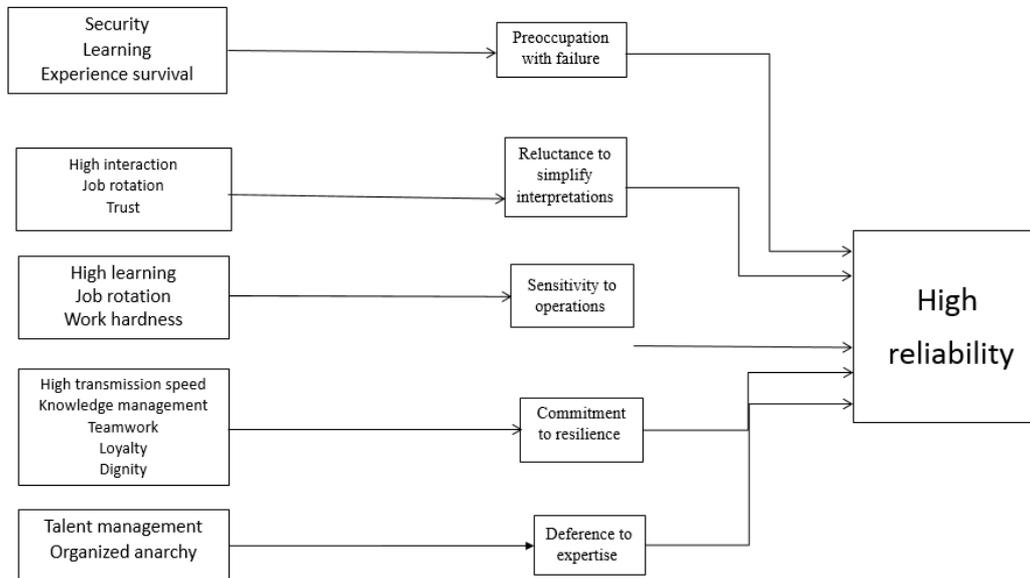


Figure 2- research conceptual model (reference: authors' findings)

## 2.1 Research questions

- 1-What are related activities to preoccupation with failure in service companies?
- 2-What are related activities to reluctance to simplify interpretations in service companies?
- 3-What are related activities to sensitivity to operation in service companies?
- 4-What are related activities to commitment to resilience in service companies?
- 5-What are related activities to deference to expertise in service companies?

## 3. Methodology

The methodology which is used in current research is discovery explanatory and in terms of goal the research is applied and in terms of collecting data it is survey.

### 3.1 Statistical population and sampling method

Statistical population of this research includes the managers and assistants of Iran electricity distribution companies that are under the Ministry of Energy. These companies are responsible to distribute electrical energy all around the country and form statistical population of the research. 40 companies of electricity distribution work in the country. Whole statistical population includes 300 people. To select the sample out of these people, Cochran's formula was used and 178 people were obtained as sample number, selection method was also simple random.

### 3.2 The tools of collecting data

Collecting data tools in this research consist of questionnaire and interviewing the elites. The questionnaire was provided and

distributed among them by the researcher to take the ideas of statistical samples which included the managers and assistants of Iran electricity distribution companies. Spectrum used in the questionnaire was Likert 5-item and consists of very high, high, average, low and very low. To investigate obtained result from questionnaire, the elites of electricity industry elites who had expert jobs and work experience upper than 10 years and management organizational position were interviewed through snowball method.

### 3.3 Validity and reliability of the research

To provide the validity of questionnaire, the ideas of elites and guiding professors as well as consulting ones were continuously used and necessary modifications were applied in the questions of questionnaire. In order to determine the reliability of questionnaire, Cronbach's alpha coefficient has been used. Calculated Cronbach's alpha coefficient is 0.72 which shows appropriate reliability of questionnaires' questions.

### 3.4 Analyzing data

To analyze data in this research, inferential statistics have been used. Due to this, SPSS software which is strong software in analyzing statistical data was utilized. In first level after collecting statistical samples, normal distribution of statistical population was first tested using Kolmogorov and Smirnov test and after ensuring the normalization of population, T-test was selected to experiment generalizing the results of sample volume to statistical population.

#### 4. Research findings

To ensure normalization of statistical population data, Kolmogorov and Smirnov test was used that obtained results are proposed in table below:

##### 4.1 Data normal distribution test and statistical test

Table 1- obtained results of Kolmogorov and Smirnov test for research variables

Result	Significance level	Z statistics	Standard deviation	Mean	Number
Normalization approval	0.057	1.334	0.65	2.898	176

After ensuring normal distribution of statistical population, t-test was used for generalizing obtained results of sample volume to used statistical population. Single sample t-test is one of the most functional statistical tests in investigating the attitude of one group about a subject or investigating a variable adjective in a particular group. In this research, the attitudes of 176 managers and assistants of Iran electricity distribution have been measured as sample about the existence of related activities to high reliability organizations in these companies through questionnaires. It means that according to the model, there are 16 activities in HRO to provide its characteristics. The research seeks to know to what extent of these activities in study organization which is Iran electricity distribution, use these activities so in order to this, questionnaire was sent and completing it was asked from manager and assistants of each Iran electricity company that are the most aware people in the field of administrating the company. In this questionnaire each respondent has answered to Likert 5-item scale including very

high, high, average, low and very low. It is now investigated if obtained answers from sample work in statistical population. The mean of statistical sample was calculated and it was 2.89. Therefore, it is claimed that population mean is 2.89 so the hypothesis is stated as below:

$$H_0: \mu \neq 2.89$$

$$H_1: \mu / = 2.89$$

Now considering the hypothesis, if the absolute value from obtained t is bigger than  $t_{0.05}$  that is 1.65 then  $H_0$  is rejected and claim is accepted. In another word the components are remained and the components whose obtained t value is smaller than critical value  $t_{0.05}$  that is 1.65 will be eliminated. The calculations have been done by software, the results have been shown in table below.

Table 2- the results of single sample t-test

Activities	Test value: 2.89			
	t	Sig. (2-tailed)	$t_{0.05}=1.65$	Result
High interaction ability	2.986	.003	$t > t_{0.05}$	Accepting claim
High transmission speed	3.520	.001	$t > t_{0.05}$	Accepting claim
High calmness	6.234	.000	$t > t_{0.05}$	Accepting claim
High learning ability	10.935	.000	$t > t_{0.05}$	Accepting claim
Job rotation	1.296	.197	$t < t_{0.05}$	Claim is rejected
Knowledge management	.132	.895	$t < t_{0.05}$	Claim is rejected
Learning	-3.962	.000	$t > t_{0.05}$	Accepting claim
Security	2.456	.015	$t > t_{0.05}$	Accepting claim
Trust	1.566	.119	$t < t_{0.05}$	Claim is rejected
Teamwork	-4.385	.000	$t > t_{0.05}$	Accepting claim
Talent management	2.593	.010	$t > t_{0.05}$	Accepting claim
Organized anarchy	-2.990	.003	$t > t_{0.05}$	Accepting claim
Experience survival	-9.001	.000	$t > t_{0.05}$	Accepting claim
Loyalty	-6.871	.000	$t > t_{0.05}$	Accepting claim
Work hardness	-1.532	.127	$t < t_{0.05}$	Claim is rejected
Dignity	-5.626	.000	$t > t_{0.05}$	Accepting claim

##### 4.2 The results of statistical test

T statistical test gives the results below:

- 1- High learning ability which is one of prominent feature of attracted human resources in HRO is noticed in Iran electricity companies during recruitment.
- 2- High transmission speed that is required characteristic of rapid decision making when crises occur is notices in Iran electricity companies during recruitment.
- 3- Calmness after decision making that is derived from trusting God is necessary in decision making and its stability is noticed during recruitment.
- 4- The ability of high interaction with others that is required for employees of HRO especially managers is the factor of selection in such organizations during recruitment.
- 5- Job rotation which is required due to acquire multiple skills in maintaining and promoting human resources doesn't exist adequately in electricity companies.

6- Knowledge management that is production, distribution and sharing knowledge in organization isn't noticed in maintaining and promoting human resources in electricity companies.

7- There is organizational learning in electricity companies as maintaining and promoting human resources activity.

8- There is security for sending error reports for the employees of HROs and they are encouraged in the activities of human resources.

9- Teamwork is conducted and encouraged as an activity of human resources.

10- Talent management which means discovering, training and encouraging people who are specifically talented in management field, is followed in electricity companies.

11- Organized anarchy that is decision making is on elites while crisis occur not on organizational chart can be found in electricity companies.

12- There isn't trust adequately among the members of electricity companies for exchanging information and intra-organizational interaction.

13- Experience survival means people who leave organization should keep their experience inside organizations through different methods and transmit it to other colleagues.

14- Loyalty means after retirement of people are referred by organization in case of need and are helped by organization.

15- Work hardiness which means early completion of work in electricity companies or early retirement cannot be found in the organization.

16- The dignity of retired employees while leaving the organization is respected through appreciating them and providing their relative rights and advantages.

From 16 activities of research model, the component of job rotation, knowledge management, trust and work hardiness don't exist in statistical population that is in Iran electricity companies, these activities aren't conducted while in a high reliability organization, these components have to be present. In this stage, now it has to be investigated if this shortage derived from negligence or lack or needing these activities in companies so the subject was followed during interviewing 10 elites of electricity industry. The question is that if the existence of knowledge management, trust, job rotation and work hardiness is necessary in electricity companies. Should companies implement these activities or considering their mission, there is no need for these activities. The ideas of ten elites and involved people in human resources in electricity companies are as follows:

1- To have high reliability performance, electricity companies should consider trust, job rotation, knowledge management and work hardiness in their employees' retirement.

2- The necessity of existence of trust, job rotation, knowledge management and work hardiness of employees while leaving organization is clear and can be found in some companies but it isn't followed in all companies.

3- Pioneer electricity companies consider trust, job rotation, knowledge management and work hardiness of employees but these activities aren't done in all companies.

4- Considering increasing expectations of people from electricity companies and to provide these expectations, there should be trust, job rotation, knowledge management and work hardiness in electricity companies.

5- The existence of trust among employees, job rotation, knowledge management and work hardiness of employees while retirement is required due to high reliability performance.

6- Job rotation and trust are necessary among the employees but knowledge management and work hardiness aren't necessary while retirement for high reliability performance.

7- In order to achieve high reliability, acquiring multiple skills with job rotation and trust among employees and work hardiness of employees is necessary but knowledge management isn't that much necessary.

8- Job rotation, knowledge management, trust among employees and work hardiness while retirement is necessary to achieve high reliability.

9- Job rotation, knowledge management, trust have been notified in electricity companies but because of some problems, they have not been executed and work hardiness is also followed by Power Ministry.

10- Trust among employees, job rotation, knowledge management and work hardiness of employees are necessary for achieving high reliability and lack of them hurt the performance.

Through the results of interviewing the elites, it can be concluded that according to them, the existence of job rotation, knowledge management, trust among employees and work hardiness of employees while retirement is necessary to have high reliability performance and lack of them in some of electricity companies is because of managers' ignorance especially those who are the managers of human resources in these companies. Due to several reasons such as cultural differences among people that manifest in the level of people expectation from electricity companies and financial abilities of companies that limit doing human resources management activities as well as insurance limitation which is derived from legal problems in the country have caused these activities not be implemented in some

companies. Considering the information above and obtained results of field investigating and conducted interviews, mentioned activities are necessary for a high reliability organization.

#### **4.3 The relationships of activities with characteristics of high reliability organizations**

a) The activities of security, learning and experience survival are necessary for providing the characteristic of preoccupation with failure for HROs. The personnel of electricity distribution companies should be able to report the errors and problems of organization even if they made those mistakes. Without being worried about the consequences of reporting errors and mistakes, people should report them to related centers. In HROs, the employees aren't blamed for their reports but they are also encouraged (Vaughan, 1996). These reports are used as much as possible to prevent turning them to bigger problems. Unexpected events are because of a chain of errors that had been hidden and suddenly caused events as cascade in electricity networks. If people report these errors on that point of production, mentioned chain won't be formed or at least it can be controlled. The thing which is important in electricity companies and increases reliability is preventing occurrence of events in network and blackout, if this important issue is preoccupation of personnel in these companies (preoccupation with failure), they will be always worried about events and seriously investigate the smallest sign of events and try to prevent it. This is organizational mindfulness that is one of characteristics on HROs, another necessary activity is learning. Here learning is using others' experiences to modify current behaviors in order to prevent repeating mistakes. Continuous trainings and effectiveness evaluation of these trainings, visiting and face to face negotiations with similar companies that had the experience of failure and analyzing the reasons of these failures and the occurrence of crises increase learning. Simulating events and creating controlled crises and comparing with crisis through implementing operational maneuvers as well as maintaining people organizational experiences while leaving the organization for example while retirement through different methods such as holding class and seminar or writing the leaflets and books so that these experiences are kept in organization in another word experience survival are of conditions of providing preoccupation with failure of organization as the first characteristic of HROs.

b) The activities of high interaction ability, job rotation and trust are required for providing reluctance to simplify interpretations in HRO. In electricity distribution companies, the belief which indicates that working in complicated organization and complicated environment is important. This belief especially should turn to faith for managers. In each electricity distribution company there are some errors and problems while exploitation that lead to blackout, if each one of these blackouts is considered as a failure in current operation, this failure will have reason or some reasons. If this failure is dealt vaguely or another person or unit is blamed for that (simplifying in interpretation) the possibility of events repetition will be more. While when for investigating and analyzing each events regardless the importance of that, all units of company try to solve the problem and prevent repeated blackout that of course the interaction among these people is necessary for it or in another word if all data even apparently less important aren't ignored, then there won't be simplification. The personnel of the company need to be trained for negotiation technique. This means negotiation and interaction of people with each other and using the abilities of each other to be able to create synergy. To achieve this ability, the existence of trust among employees as well as between employees and managers is necessary, here the person should be sure that other one doesn't do anything to his detriment (Holman, 2005). Without trust, people won't share their knowledge with each other. Job rotation can be effective in trust and mutual perception among the units of organization because being in different jobs and familiarizing with problems and hardiness of each job will increase its employees' perception. Ultimately if this belief is created that failures and problems

aren't because of one person or unit but a chain of people or involved units and to solve it whole organization should be involved and use whole its power, then the company has provided reluctance to simplify interpretations that is second characteristic of an HRO.

c) The activities of high learning ability, job rotation and work hardness are required for sensitivity to operations in HR, each one of the employees in electricity companies should be relatively aware of whole purchase, distribution and sale electricity operations that is they should be able to create a mental image of complete operation of electricity company because if they saw a problem or error in a part of company's current operation, they would be able to perceive the effect of this error or mistake in whole operation of the company. To achieve this recognition electricity company needs to have job rotation. Displacement and using organization personnel in different jobs create this cognitive ability for them to be aware of whole organization operation. For example, the personnel of engineering and designing section should be also used in exploitation sections and vice versa. Even the personnel of official units and customer service should work in exploitation section for a while and be trained. This perception of all organization operations is effective on increasing the attempt motivation for modifying or handling created problem. On the other hand, the managers of companies should believe that main activity of company is conducted by operational workforce and they are directly faced to the problems and work hardness and they are the most important resources of company and their ideas should be considered in administrating a company. When these workforces felt tired or found problem in facing work pressure, their request for their displacement should be agreed and in retirement they should be also retired sooner than usual. Particular attention of managers to operational workforces and providing their needs are necessary for sensitivity to operations which is third characteristic of HRO.

d) High transmission speed, knowledge management, teamwork, loyalty and dignity are required for providing commitment to resilience. People expect electricity companies when there is a blackout, it is immediately solved and the conditions get normal again. This is a right expectation because main owners of the company are people. To provide this expectation, electricity companies should conduct two activities; first predict the events and before occurring be prepared to cope with it. The necessity of this preparedness is continues visits from network and identifying its weaknesses. Second is that when an events occurred, whole company would be able to return the conditions to the normal status. This ability can be achieved through using people who are fast in making decisions, teamwork and cooperation of people to solve problem is another necessary point for returning to initial status. In wide events such as earthquake and flood that damage is high and long blackouts are expected, using the experiences of experienced people even those who had left the company is required. The conditions should be so that people outside the company like experienced retired ones can refer to organization in case of need, that is they should be loyal to the organization and retirement shouldn't be permanent separation of these people from organization that of course it will be through appreciating and respecting these people. If people who have left the company aren't satisfied with their situation, they won't cooperate their organization again. Collecting the experiences of employed people in organization and those who are retired in critical conditions and events is a kind of organizational knowledge that can be effective in returning to previous situations. Fourth characteristic of HRO which is commitment to resilience will be provided in this way.

e) Talent management and organized anarchy as well as calmness while making decision are required for providing the characteristic of deference to expertise in HRO. When events occur in electricity distribution companies, people who are able to handling the events and coping with its destructive consequences and above all returning the conditions to initial status are elites and experienced experts of these companies. Solving occurred problem usually needs to making decision and

more important than that stability in decision making, for example, people displacement, buying some goods, transferring the equipment from a point to another one or even relationship with companies and other organizations. Elites and experts should be able to make such decisions while events occurs and all people of organizations should obey these decisions. While in normal situation, the decisions are made according to organizational structure that is managers and senior people of organization decide, other people of organization have to obey it. To be able to put responsibility on their elites and experts in events especially in critical conditions, electricity companies should be prepared before. One of this preparedness is talent management in electricity companies. Talent management is identifying, noticing, attention and strengthening the people who are able to manage the events (Armstrong, 2012). Management is a set of art and science that is it requires either natural talent or learning and training so people who are talented in management and are usually known passing the time and facing hard situation should be identified and trained scientifically and practically to be able to manage critical situation. Simulating crisis and doing operational maneuvers are also necessary for keeping and increasing the power of crisis management and training required elites, on the other hand senior managers of organization should dare to give the responsibility of making decision to experienced elites and experts and although the responsibility of making decisions is one them but final accountability is on senior managers of electricity distribution companies. All of these conditions will realize fifth characteristic of HRO.

## 5. Conclusion

If an organization wants to have high reliability performance that is not having failure in its mission or at least having rare failures and passes events successfully or in better word best management, it can use the characteristics of HROs. To achieve the characteristics of HROs that were mentioned in this paper, the security of personnel for reporting errors, creating trust among the personnel of organization, the survival of stored experience, high interaction of personnel with each other, trusting each other for exchanging the knowledge, high transmission speed for decision making in events, knowledge management for distributing organizational knowledge, job orientation in order to acquiring several skills, teamwork, organizational learning, identifying and promoting management talents in people of organization and ultimately creating loyalty and dignity for people who left the organizations for using their experiences in events are necessary.

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**Primary Paper Section: A**

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## CHANNEL EFFECT AND THE PERCEIVED QUALITY OF WEB AND PERCEIVED SERVICES ON AFTER SALES SERVICES IN THE INSURANCE INDUSTRY

<sup>a</sup>RASOUL SANAVIFARD, <sup>b</sup>MEYSAM SEYF FARAHİ

<sup>a</sup> Management assistant professor of Azad university of Qom

<sup>b</sup> Master of Business Administration marketing trends of Azad university of Qom

Email Corresponding Author: <sup>a</sup> dr.sanavifard@gmail.com

<sup>b</sup> Meysamseyffarahi@gmail.com

**Abstract:** The purpose of the present research is studying the effect of communication channel, perceived quality of web and perceived services on after sales services in Saman insurance in Tehran. This is a practical in terms of purpose and a descriptive research based on data collecting method and type of correlation in terms of analyzing data. Statistical population of the present research is customers of Saman insurance, the random sampling method was used to select sample that 384 people were selected. The questionnaire was used to collect data. Then the tools of data analyzing were evaluated including descriptive statistic and inferential statistic by using structural equation modeling. The results showed that the communicational channel, perceived quality of web and value of perceived services have effect on after sales services.

**Keywords:** communicational channel, perceived quality and value from web, after sales services.

### 1 Introduction

By fast global development in electronic business and turning most of businesses toward internet and using websites to presentation, introduce and sale their services and products, the need for designing a website in the name of company is felt. There are many agents in the websites that in form of presentation designed services to attract attention and trust of customers who enter the website. So that customers achieve satisfaction feeling from all service agents which are in this website, and spend a longer time in the environment of that website and utilize from the website services by complete evaluation of introduced services and products in that and amount of perception which they achieve from the quality of presented electronic services by the internet website such as website designing, reliability, responsiveness, trust and overall quality. If in the process of service presentation, interactions between human and machine are formed in a virtual environment; conceptions will be described in the form of electronic services. These services are presented through nets and systems such as internet, ATM systems, telephone banking, telephone services, presenter systems of automatic services and etc. (Chang, K et al., 2010) in services part, the quality of that is evaluated during the process of services presentation. Aladwani and Palvia (2002) measure the perception of users in the scale from services quality based on development study. They suggested that the qualities of perceived services from web as the evaluation of users are from the features that they need when they face with web which is a reflection of top website. Based on exploratory factor analysis, they have presented four dimensions of perceived quality: technical efficiency, content quality, special content (service) and perceived quality. Researchers previously argued that quality of perceived services from web with services contents (such as service to customers and maintaining privacy) self-service technology such as ecommerce website can positively have effect on the perceptions of consumers from enjoying the system and buy behavior. (Hallowell, 1996) From one hand, competition is very close and intensive in distribution channels; electronic distribution channels soon will have the most shares in the field of retail. Experts believe that electronic distribution channels will surmount channels stationed on objective stores.

Based on description of Waytesk in 2005 "after sales serviced is often said to services that are presented to customer after delivery of goods" supporting after sales and technical support and product support are also phrases that have been used about this (Lin, J.S.C. & Liang, 2001) in the belief of Gronruz after sales services are often the responses to the customer's problem. These problems include lack of product proficiency; diagnose the problem, expert help in solving the problem, lack of

knowledge of how to use the product by the customer, etc. (Yen et al., 2007).

Similar researches in this field have been conducted which have been mentioned them in short, Jafari et al., (2014) in e research with the topic of "evaluating effect of judicial electronic services quality on satisfaction of citizens " showed that two variables of offices services quality and judicial electronic services system quality with its dimensions have a positive and significant effect on satisfaction of citizens. Ranjbaran et al., (2012) in a research with the topic of "analyzing the relationship between perceived value, perceived quality, satisfaction of customer and intend to re-buy in chain stores of Tehran" showed that in chain stores, perceived value has effect on perceived value and also on satisfaction of customer and intend to re-buy. Results from Chit Chartun et al., (2013) with the topic of (study of evaluating model of channel effect, perceived quality of web, awareness from brand and perceived quality on after sales services of all products in a company) showed that only channel, perceived quality of web and perceived quality had a positive effect with after sales services of the company (Yarahmadi, 2015). Hutchinson et al., (2009) also in a research with the topic of "perception of relationships quality, value, justice, satisfaction and behavioral relationships among Golf travelers" showed that services quality didn't have a significant effect on value and satisfaction. While the perceived value has a positive relationship with satisfaction variable, (Qalavandi et al., 2012). (Jafari et al., 2014) Hise and Sizmani (2002) have introduced determinant factors of electronic satisfaction, buy convenience, factors related to product, designing site and financial security by presenting a model. Li and Torin (2001) also have known support agents for receive and send orders, services to customer, cost, website (speed, articles quality, and use easiness), financial security (financial, maintaining private secrets) effective on electronic satisfaction (Chan et al., 2010). Miles (2002) evaluated electronic satisfaction in Midwestern University and among 174 students, the recognized factors which were effective on electronic satisfaction include: interaction with website, perceived quality of web site services and perceived value of website for customer (Ranjbaran et al., 2012). Baner and Garther (2002) also with research on available characters in internet have introduced determinant factors of electronic satisfaction, accessibility amount to information, communicational structure, personal-making, consolidation of information and exchanges (Edward & Sahadev, 2011). In fact, available information in organizational websites are not only considered as the input port of users to each one of organizations but also quantity and quality of presentation of informing services and accessibility to up-to-date services by them create an image in the users' minds which arbitrage based on that about organization generality, so organizations should be assiduous more than pervious in designing and maintaining life cycle of their website.

According to the importance of communicational channel which customers have in services industry especially insurance, pay attention to customers' attitude about perception of them from web quality and the service value which is provided for them through electronic, has high importance and companies can easily manage after sales services through this. So according to mentioned cases, conducting such research which evaluate many factors in service industry but the same time, it seems necessary and because the insurance industry is one of service industries in the country that has many diverse and complex needs, need to evaluate the way of services presentation quality, after sales services and processes related to that and communicational channels with customers to present solutions if necessary to improve services quality and process related to that in the electronic field. So according to growing of electronic communications and necessity of studying that and considering the following purposes, the present research is conducted:

- Study of communicational channel effect on after sales services in insurance industry.

- Study of perceived quality of web effect on after sales services in insurance industry.

- Study of perceived services value effect on after sales services in insurance industry.

### 3 The research methodology

#### 3.1 Hypotheses of the research

- The communicational channel has effect on after sales services in insurance industry.

- Perceived quality of web has effect on after sales services in insurance industry.

- Perceived services value effect has effect on after sales services in insurance industry.

The present research is practical in terms of purpose. Based on way of collecting data it is considered as the descriptive researches. Also according to way of data analyzing it is the type of correlation. The statistical population of this research is all

employees of Saman insurance company, according to this that the statistical population of the research includes the customers of Saman insurance that are unlimited, the random sampling method was used in order to select sample which 384 people were selected by using Cochran formula.

The most important methods of information collecting in this research include library methods which are used in all scientific researches in order to collect information in the field of theoretical principles and subject literature of the research and in order to collect data and information for analysis, questionnaire has been used. After preparation of preliminary plan of the questionnaire it was tried to determine the validity and reliability of the questionnaire. So the Cronbach's alpha method and "SPSS" software have been used in order to determine reliability of the test. The purpose of evaluating measurement model is evaluation of weights and loadings of latent variables and the purpose of evaluating the structural model is evaluation of path coefficients between the latent variables.

#### 3.2 The reliability of the structure (internal compatibility)

This index is calculated based on Cronbach's alpha coefficient. The value of this index should be equal or more than 0.7 (Nunnally, 1988) table 1 show the reliability value of the structure for each one of the latent variables.

Table 1: the reliability of the latent variables structure

Latent variable Reliability of structure	communicational channel	Perceived quality of the Web	Perceived services value	after sales services
compound reliability	0.665	0.624	0.655	0.643
Cronbach's alpha	0.712	0.772	0.761	0.801

As it is observed all compounded reliability values have been calculated more than 0.7. The value of Cronbach's alpha coefficient also has been shown in above table and it is observed that all these coefficients are more than 0.7. So the measuring model has suitable structure reliability. Also convergent validity in PLS model has been analyzed by average variance extracted (AVE). This index shows the value of variance that a structure

(latent variable) obtains from its indexes. For this criterion; Farner and Laker (1981) suggest values more than 0.5 because this value certifies that at least 50% of variance of a structure is described by its indexes. In continue results from evaluation of convergent reliability have been presented in the present research.

Table 2: convergent reliability of structures of the research (latent variables)

Latent variable Convergent validity	communication al channel	Perceived quality of the Web	Perceived services value	after sales services
Mean variance extracted (AVE)	0.665	0.678	0.625	0.654

As it is observed in table 2 all values of average variance extracted are more than 0.5 and so the measuring model has suitable convergent reliability.

As it is observable the value of coefficients of all variables are more than criteria value of 0.7, so the present research has the required reliability in order to distribute in statistical population. Also the structural equation modeling that partial least squares (PLS) have been used. First the measurement model and then the structural model have been analyzed. Finally obtained information has been analyzed by using descriptive statistical and inferential statistical methods. So frequency distribution table, the related central indexes have been used in descriptive analysis. The point that should be considered before any statistical analysis is that the synergy of interactions between the components should be considered. So techniques such as neural network should be used to achieve the desired result. But because data is not definitive and accurate (deterministic) and it

is the result of the people's poll and different from person to person; means it is random (stochastic), the statistical techniques should be used. In this part, model of the research has been tested and its validity has been evaluated. For this purpose the structural equation analysis method (PLS) has been used.

## 4 Findings of the research

### 4.1 Descriptive findings

In this part from statistical analysis, the way of statistical samples distribution is evaluated in terms of variables such as sex, work experiment, education level and age.

Based on obtained information from descriptive statistics, in terms of sex 57% of respondents have been male and 43% of respondents have been female in this research. In terms of education level, about 7% of respondents have education

diploma and lower, about 14% of respondent have associate degree, about 57% have bachelor education and also about 22% have MA education and higher. Also the work experiment, about 63% of respondents have lower than 10 years of work experiment, 28% of respondent have work experiment between 10 to 15 years, 7% of respondents have experiment between 15 to 25 years, about 2% of respondents have work experiment more than 20 years. Also in terms of age, about 27% of respondents have age less than 25 years old, about 57% have age between 25 to 35 years old, about 14% have age under 35 to 45

years old and about 2% of respondents have age 45 years old to up.

**4.2 Analysis of Structural Model**

In the model of research, Communicational channel variables, perceived quality of web, perceived services value has been used as an independent variable, after sales services has been used as dependent variable. The research model was implemented with the defined relations and following results obtained.

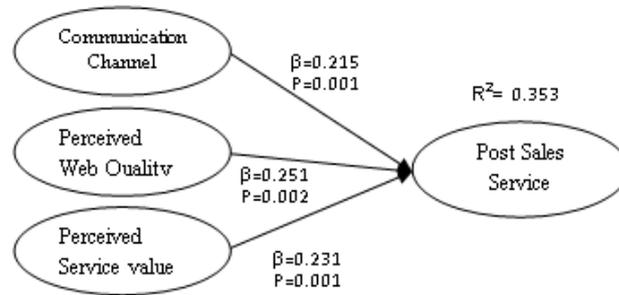


Figure 1: The structural model

Path coefficient of each of paths has been shown in Figure 1. Each of the coefficients is acceptable if it's P-value to be less

than 0.05. P- values related on each of variables has been presented in the following table.

Table 3: path coefficients significantly

path	Path coefficient	P- values	Result
Communicational channel → after sales services	0215	001.0	Confirmation
perceived quality of web → after sales services	251.0	002.0	Confirmation
perceived services value → after sales services	231.0	001.0	Confirmation

like the data show, in relations defined, all variables have achieved significant the coefficients of their path, so the communicational channel, perceived quality of web and perceived services value has effect on after sales services. The prediction power of designed model is analyzed with the use of coefficient of determination value (R2) for the dependent variable. Falk and Miller (1992) have indicated values of greater than or equal to 0.1 for coefficient of determination. In this research, according to the values in Table 4, it can be concluded that structural model of present study has sufficient prediction power. In other words, 24.2% of the variability in after sales services is explained by entering variables in the model.

Table 4: coefficients of determination for dependent variables

Index of Dependent variables	R <sup>2</sup>
after sales services	242.0

Finally, it is appropriate that analysis of estimated structural model to be completed by PLS technique, by using Stone-Geisser test (Q2). Q2 coefficient is a non-parametric criterion. This criterion is used for assessing the predictive validity of

latent variables in the model. Q2 values are usually close to the values of R2, although unlike the coefficients of R2, Q2 coefficients can also adopt negative values. In this research Stone-Geisser test values has been calculated higher than zero that shows the intended model, has necessary capacity and power.

Table 5: Stone-Geisser test for latent variables

Index of Dependent variables	Q <sup>2</sup>
after sales services	235.0

According to the subjects mentioned on analysis of the structural model of the second stage, it is seen that all under study values had the necessary conditions and so this model has sufficient predictive power. Analysis of the findings showed that the communicational channel, perceived quality of the web, perceived services value has effect on after sales services in the Saman insurance. Positive relationship of each of variables has been shown below. Path coefficients of the each mentioned variables have been presented in Table 6.

Table 6: path coefficients and research hypotheses

path	Path coefficient	P- values	Result
communicational channel → after sales services	0215	001.0	Confirmation
perceived quality of Web → after sales services	251.0	002.0	Confirmation
perceived services value → after sales services	231.0	001.0	Confirmation

According to the results presented in Table 6, in first hypothesis (communicational channel effect on after sales services) is more than 0.2 (0.215) and the number of significant level is less than 0.05 (0.001). So the first hypothesis is confirmed. Means communicational channel has an effect on after sales services in the Saman insurance company.

- According to this that path coefficient of the second hypothesis (effect of perceived quality of web on after sales services) is more than 0.2 (0.251) and number of significant level is less than 0.05 (0.02); so the second hypothesis is confirmed. Means perceived quality of web has effect on after sales services in Saman insurance company.

- According to this that path coefficient of the third hypothesis (effect of perceived services value on after sales services) is more than 0.2 (0.231) and number of significant level is less than 0.05 (0.001); so the third hypothesis is confirmed. Means perceived services value has effect on after sales services in Saman insurance company.

- According to this that path coefficient of the second hypothesis (effect of perceived quality of web on after sales services) is more than 0.2 (0.251) and number of significant level is less than 0.05 (0.02); so the second hypothesis is confirmed. Means perceived quality of web has effect on after sales services in Saman insurance company.

- According to this that path coefficient of the third hypothesis (effect of perceived services value on after sales services) is more than 0.2 (0.231) and number of significant level is less than 0.05 (0.001); so the third hypothesis is confirmed. Means perceived services value has effect on after sales services in Saman insurance company.

## 5 Discussion and conclusion

The present research was conducted with the purpose of evaluating the effect of communication channel, perceived quality of web and perceived services on after sales services in Saman insurance in Tehran city. In this regard, one model and three hypotheses were designed and tested, results from this research showed that the perceived quality of web with path coefficient of 0.251 has the most effect on after sales services of the company among the variables. It is suggested to managers and authorities of Saman insurance company to conduct required needs assessment to recognize needs, demands, preferences and interests of customers for increasing the perceived quality. Also it should be more pay attention about the quality of existing services in the company. In addition to this, quality and speed of presenting services should be increased. By this customers' satisfaction will be increased and they realize the quality of the presented services of Saman insurance company better and they will return again.

Results of the research showed that the perceived services value with path coefficient of 0.231 is the second variable that has the most effect on after sales services. Authorities of Saman insurance should be aware that the perceived value has effect on customer's satisfaction; in the other word, the high perceived value can lead to more satisfaction of each of customers of Saman insurance. In addition to this, results of the research show that the perceived value, customer's satisfaction and perceived quality have effect on after sales services. So it is suggested that to balance between received services and paid cost by customer to increase perceived value, to make culture and informing about benefits of services of Saman insurance company. Also services be determined logically and laws and policies of Saman insurance be clear and understandable. Results of the research showed that the communicational channel with path coefficient of 0.215 is the third variable that has the most effect on after sales services. Authorities of Saman insurance company should establish diverse channels with their customers. These channels can be contrived in website of the company; including online

answer to demands and questions of customers, receiving their comments, timely informing about new services. Whatever communicational channel be more and more powerful, customers will have more trust. Also this matter can have a great effect on after sales services and income amount of the company.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## STRATEGY MAKING FOR TOURISM DESTINATION DEVELOPMENT BY USING QUANTITATIVE ANALYSIS AND SWOT MATRIX, CASE STUDY: GHAEMSHAHR COUNTY

<sup>a</sup>FAYAZ RIAZI, <sup>b</sup>ESMAEIL SHIEH, <sup>c</sup>REZA KHEYRODDIN<sup>C</sup>

<sup>a</sup> Master of Regional planning, Iran university of science and technology, Tehran, Iran (Corresponding Author)

<sup>b</sup> Professor in Urban Planning department, Iran university of science and technology, Tehran, Iran

<sup>c</sup> Assistant professor in Urban Planning department, Iran university of science and technology, Tehran, Iran

Email: <sup>a</sup>fayaz.riazi@gmail.com, <sup>b</sup>es\_shieh@iust.ac.ir, <sup>c</sup>reza\_kheyroddin@iust.ac.ir

**Abstract.** Economic problems, particularly unemployment in the Ghaemshahr County, have led authorities focus on tourism section. However, Ghaemshahr County is poor in developing of tourism despite its environmental attractions, horticultural products and strategic location. Due to the necessity of tourism development in this area, making practical strategies is inevitable. In this research, at first the questionnaire has been designed based on extraction of indexes from resource study, after filling out these questionnaires by tourists, these data are used in factor analysis, then the main factors will become determined. All of these steps are for supplying the SWOT matrix to elicit the practical strategy for developing tourism in this destination

**Keywords:** tourism destination, destination factors, tourism services, factor analysis, regression analysis

### 1 Introduction

Experiences show that tourism industry has influences on everyone and everything which are related to it (Theobald, 2005). Tourism enhances the economy growth (Tugcu, 2014) and decreases the unemployment rate (Inchausti-Sintes, 2015) and can concentrate the economic activity in region while degrades the gap between regions (Andraz, Norte, & Gonçalves, 2015). Tourism provokes the region development by making employment, makes variety the areas' economic bases and makes opportunity to renovate regions and increasing the social benefits (Butler, Hall, & Jenkis, 1998, p. 3). But tourism development needs huge sources and expenditures, considering the limitation of resources, efficient strategy should be selected for region development, so that it can make the region develop. While tourism can respond to its costs, it should grow according to the capacities, potentials and capabilities of the certain region, without spending enormous costs. For example (Benur & Bramwell, 2015), emphasize on destinations good rather than accommodation, hospitality and transportation. In recent years, a lot of researches have been done on Development Tourism Destination (Benur & Bramwell, 2015; Artigas et al., 2015; Királová &

Pavličeka, 2015) and new methods for measuring the function of tourism destination are introduced (González-Martínez, 2014) but lack of a method for introducing reinforce indexes of tourism in destination, analyze and prioritizing them is felt.

Since Ghaemshahr county not only is struggling with a lot of problems such as unemployment and economic crisis, but also is the poorest county in tourism section in its province. So, the officials decided to improve tourism industry in order to improve employment and increase in employment concentration and positive growth and finally exiting from crisis (Fars news, 2015). Ghaemshahr is located on main transit roads of north corridor of Iran and Firuzkooh orient that connect Mazandaran province to Tehran province. Moreover, the Trans-Iranian railway crosses from this county. That makes Ghaemshahr country as a strategic place. This county is about 425.4 Km<sup>2</sup> in area and has gorgeous nature scenery and historical places like Gerdkooh hill (Municipality Ghaemshahr, 2009). Talar forest park and is one the recreational area even one of the sixty tourism areas of Mazandaran province, also by locating in Jaddenezami lake on the sideline of the Talar park, is made suitable place for servicing to tourists (Ghatreh, 2012). Furthermore this county stands on the first place in ranking of lemon productions in province and has good position in productions of citrus despite its low area (Statistical Center of Iran, 2010). But, in contrast of imagination, this county doesn't have good position in tourism section in Mazandran province and its capacities and potentials are denied. Also there is no good plan and policy for using these capacities. This research introduces the primarily factors for developing destination tourism from tourists' point of view, the result can be used for planning and developing tourism in destinations.

### 2 Methodology

In this research, the library-documentary method as well as heuristic analysis has been used. At first the questionnaire has been designed based on extraction of indexes from study of resources. After filling out these questionnaires by tourists, gathered data will be used in factor analysis, then, main factors will become determined. These factor arrived in regression analysis for attaining Beta coefficient (fig.1). By this Beta coefficient, the rate of satisfaction will be determined. All of these steps are for supplying the SWOT matrix to elicit the practical strategy for developing tourism in that destination

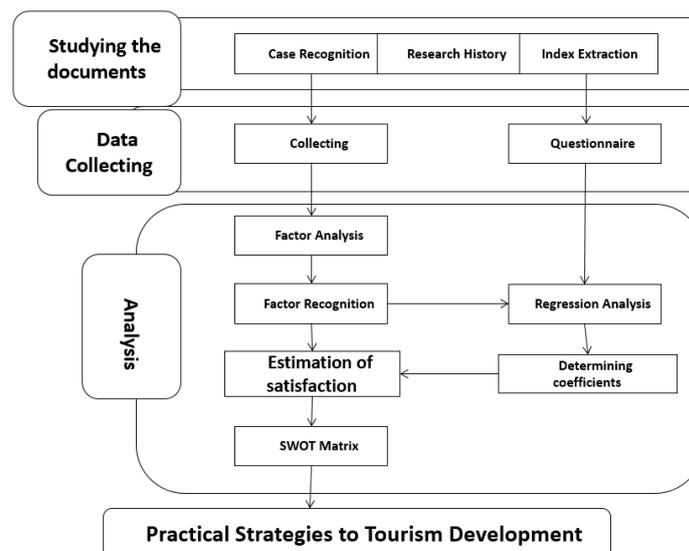


Fig. 1: Diagram of research's method

### 3 Literature

They are energetic and invigorating sources of tourism industry. Attraction can instigate visitors to travel here and then can satisfy tourists by making good experiences (Kazemi, 2007, p. 56). Attractions can be divided in two kinds, at first natural-base attraction such as plants, fauna and lands, secondly human made, or in the other categories, it can be classified by cultural differences like language, music and folklore (Doswell, 1997, p. 45), (Lea, 1988). Also initial products have basic role in tourism attraction (Benur & Bramwell, 2015). The attraction of destination for tourists usually depends on physical, environmental, socio-cultural characters. Moreover, variety of this goods is important to competitive and sustainable tourism (Benur & Bramwell, 2015). Quality of tourism services is one of the efficient component in destination success, as some of countries considered this as their policy for competition in this market. (Albaladejo, González-Martínez, & Martínez-García, 2014). Furthermore, gaining the costumers' satisfaction and comprehension of their needs by the managers for developing tourism services are vital (O' Cass & Sok, 2015). Tourism services include breadth of supporting services like banks, restaurants, medicine centers, and shop stores (Lea, 1988) that have multiple effects on economy (Gunn & Var, 2002). Moreover, monitoring on the cost of provided services can be important (Gholami, 2004).

Tourism activities strongly depend on other current and executive activities in country and are relied on many different infrastructures and other supporting factors. Countries have invested hugely for attracting tourists. For example France had 32 billion dollars income, but he spent 12.8 billion dollars on tourism industry in the same time or United States spent 40 billion dollars on tourism industry in the same time. Infrastructures and facilities are really extensive in meaning that used for cover all of supporting things in preparing services (road, railway, airport, electrical power, challis and drainage, security infrastructures) (Mohseni, 2009). Because of its high capital costs, usually governments are responsible of provision

of these services and often give services to local people (Lea, 1988, p. 45). Moreover, this section play important role is relating between market source and destination (Gunn & Var, 2002, p. 52). Doswell (1997) and Lea (1988) also indicate transportation as one the most important infrastructures for comfortable arriving in a country or region. Also number and location of airport, ports, and road development and other transportation network are very important (Kazemi, 2007, p. 56). Furthermore, water and electricity network have great importance. Without those, it isn't possible to make extensive tourism system and also without drainage system, tourism development will causes destruction of natural ecosystem and pollution from industries (Choovanichchannon, 2015) (Rahmati, 2008).

**Tourist Costs:** in tourism, usually emerge as transportation costs and accommodation costs (Samadian, Hoseini, & Raouf Ara, 2009)(Croes, 2000). So, tourism destination have to present proper price in order to improve standard of tourism quality (Choovanichchannon, 2015) (Samadian, Hoseini, & Raouf Ara, 2009).

**Information technology:** considering that tourists accommodate in destination just a short time, it's essential they know what they are supposed to see and do as well as purchase. They have to be aware of destination and its services (Doswell, 1997) so, equip of institutes and organs that are involved with tourism industry and information system are inevitable.

Nowadays, tourists became more aware and more demanding of more suitable facilities, so, tourism section has to improve their employments to pamper their tourists (Zargham, 2004). Threat commitments and security can effect on tourism section negatively more than other factors and this influences of travel tendency (Malviya, 2005)(Kazemi, 2007).

Totally, tourism component in destination can be divided to: Attractions, services, Infrastructures and superstructures (table 1).

Table 1. Tourism development factors

<ul style="list-style-type: none"> <li>▪ <b>Attraction</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ Attractions and natural attractions Capacity</li> <li>▪ Attractions and historical and cultural capacities</li> <li>▪ Products (gardening and crafts)</li> <li>▪ Customs and local traditions and encourage the use of local coverage</li> <li>▪ Behavior and people</li> <li>▪ Festival (artistic, cultural and sports, etc.)</li> <li>▪ Exhibitions (art, food, etc.)</li> <li>▪ Developing Local Markets</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Services</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ Access to settlement services and accommodation services (hotels, inns, etc.)</li> <li>▪ Access to Services Sport Entertainment</li> <li>▪ Access to health care</li> <li>▪ Access to services Dining</li> <li>▪ Access to quality stores</li> <li>▪ Access to banking services</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Infrastructure</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ Access to water and energy infrastructure (electricity, gas)</li> <li>▪ Access to telecommunications</li> <li>▪ Access to transport facilities (roads, terminals, etc.)</li> <li>▪ The position of health, cleanliness and sanitation</li> <li>▪ Security</li> </ul>
<ul style="list-style-type: none"> <li>▪ <b>Superstructure</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ Superstructure local investment</li> <li>▪ The level of staff training tourism</li> <li>▪ Advertising and marketing</li> <li>▪ Development of travel agencies</li> <li>▪ Shipping cost (the cost of fuel, car rentals, etc.)</li> <li>▪ The cost of accommodation and stay</li> <li>▪ Monitoring and control pricing</li> </ul>

Regarding to elicited components, the questionnaire was arranged. This questionnaire, at first, has been factor analysis to extract main factors, then these factors consider as independent variables and the quality of tourism section consider as dependent variable used in regression analysis.

### 4 Analysis

The confidence level in this analysis was ordained 95% means 5% fault is acceptable. As total manner, number of specimen has to be 4 or 5 times more than the variables (Sarmad, Bazargan, &

Hejazi, 2015). Cronbach's alpha was used to measure the validity of the test. Cronbach's coefficient alpha for one-dimensional measure of attitudes, judgments, opinions and other categories that measure it is not easy to apply (MansourFar, 2009, p. 48). The test was 0.931 value greater than 0.75 is a value that is acceptable. The validity is that if the measure with the same characteristics by and under the same conditions again be measured at different times results will be the same (MansourFar, 2009, p. 48).

#### 4.1 Analytical Model

Determination of effective factors in tourism development using factor analysis

Sig value in Barlett's test is less than 5% which indicates that factor analysis is appropriate for recognition of factor model

structure and the known hypothesis of correlation matrix is rejected. Since  $K.M.O=0.848$  is close to 1, it can be indicated that factor analysis is in a good level and its results are generalizable to the population and sample number is appropriate for factor analysis.

According to table 2 if the obtained factors be rotated with Varimax method, five factors can define the variances. These five factors in total can explain 63.404% of variance and the first factor is the biggest part (21.5%) and the fifth factor is the smallest part (5.34%). The second, third and fourth factors can explain in the order 16.5%, 11% and 8.25% of all variances. According to Varimax rotation, mentioned variables have greater share in the first to fifth factors which are shown in table 2.

Table 2. Effective factors in tourism development

F1	F2	F3	F4	F5
Access to water & energy( electricity & gas), access to facilities of long distance relationship, access to health services, access to accommodation (hotels, inns), security & military infrastructure, pricing control	How to use natural attractions, how to use cultural & historical attractions, strengthening local traditions & encouraging the use of costumes	Exhibitions(food, artistic,...), local market development, festivals (artistic, athletic, cultural), advertising & marketing, travel agencies development, access to high quality shops, access to banking services	Accommodation cost, transportation cost	Inhabitants behavior & hospitality

According to this analysis & indexes which form factors, factors are named:

F1: tourism infrastructure F2: attractions F3: advertisements  
F4: costs F5: inhabitants behavior

#### 4.2 Factor prioritizing by using regression

In this research, "enter method" in regression has been used. Enter method is a kind of method in which all independent variables simultaneously enter into analyze & effects of all independent variables on dependent variable are investigated. Dependent variables in this analysis are the factors which are extracted from factor analysis & dependent variable is same as the last question of questionnaire (tourist's satisfaction of tourism conditions in the city Ghaemshahr). This analysis shows the importance and factors' effect on dependent variables so that the more obtained beta coefficient, the more effective independent variables (factors) on dependent variable. Coefficient of determination ( $R=726$ ) in table 5-5 shows that 72.6% of total tourists satisfaction changes can be explained by these variables and the rest can be explained by the factors which aren't considered.

Obtained number for F(49.834) in table(model summary), which shows regression being meaningful and linear relation among variables, indicated that at least one of the dependent variables is

effective in predicting independent variables. In table of dependent coefficients, sig of all independent variables are less than 0.05 which shows they are meaningful. According to beta coefficients, linear equation of regression is

$$Y=0.531 x_1+0.514 x_2+ 0.330 x_3 + 0.110 x_4 + 0.243 x_5$$

As we know beta coefficient is used for determination of independent variables effectiveness on dependent variables.

After all stages done, in order to compute the satisfaction average - (1-1) formula - at first factors averages are computed according to indexes and their efficiency. Then according to (2-1) relation dissatisfaction average is computed. Coefficient of importance shows their rank in beta coefficient as well. The factor which gains the most beta, is the most important in planning and its changes in dependent variable is the most effective among all other factors. After computing amount of dissatisfaction, we should prioritize tourism planning, therefore beta coefficient is multiplied in amount of dissatisfaction in order to get each factor's score. So each factor's importance in changes and amount of dissatisfaction, factors' scores which are same as planning prioritize, are determined.

Amount of satisfaction=factor average\* specific amount

Amount of dissatisfaction=amount of satisfaction -200

Table 3. Final prioritizing

Factors	Factor average	Specific amount	Amount satisfaction of	Amount dissatisfaction of	Beta	Score	Priority
Tourism infrastructure	4	26.3	0.531	49.49756	150.5024	22.198	6.78
Attractions	1	72	0.514	140.5254	59.47456	11.096	5.36
Costs	3	40	0.330	112.2788	87.7212	16.520	5.31
Advertisement	5	17.3	0.110	157.8425	42.1575	8.250	5.11
Inhabitants behavior	2	42.3	0.243	174.368	25.632	5.340	4.8

#### 4.3 SWOT Matrix

According to the regression analysis and other calculations, these results have been extracted that the most important priority of tourism planning in Ghaemshar County is Advertisement including marketing for local festivals and markets. Although costs are one of the important issues in tourism services, it gained the lowest position in this analysis. Resident's behavior and Attractions as well as infrastructures are in the next priority after Advertisement.

According to the SWOT matrix, these strategies are extracted:

- Holding seasonal festivals attract tourists focus on citrus fruits
- Focus on local festivals, pick-prone villages in the rural villages and make ready to receive tourists
- Holding a few days local festivals in the countryside
- Community education, and service providers
- Sustainable development and the preservation of natural and cultural resources and approximation people to receive tourists and to tourism as a source of income
- Training managers and officials
- Using practical plans and strategies

#### 5 Conclusion

Tourism industry can help economic growth in areas and regions and also causes concentration on economic activities in regions as well as reduce the gap among regions by helping undeveloped regions. But tourism development needs a lot of investments and

financial sources that by considering limitation of those, this is important to find an efficient strategy for infill development of this industry. This way tourism industry not only affords costs but also can grow according to capacities and capabilities of the certain destination therefore it causes regional development. This research introduces a suitable method to achieve that goal therefore the lack of previous researches related to destination and planning will be leaded to a correct way. According to the factor analysis that has done on questionnaire, is shown, 5 factors can introduce 64.4 percent of total variance. Those factors contain Attracting, Advertisement (marketing and festival), Residents behavior, as well as infrastructures.

According to the regression analysis and other calculations, these results have been extracted that the most important priority of tourism planning in Ghaemshar County is Advertisement including marketing for local festivals and markets. Which means that success of tourism in this region depends on spending money and processes in advertisement (marketing and festivals and traditional markets) more than anything. Although costs are one of the important issues in tourism services, it gained the lowest position in this analysis. Resident's behavior and Attractions and infrastructures are in the next priority after Advertisement.

As a result and regarding to the strategies that extract from SWOT matrix, this model introduces major strategy for development tourism section in Ghaemshahr county that are:

Holding a few days local festivals in the countryside Focus on local festivals, pick-prone villages in the rural villages and make ready to receive tourists.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## THE IMPACT OF STRUCTURAL CAPITALS IN ORGANIZATIONS ON ENTREPRENEURIAL ORIENTATION (CASE STUDY: EMPLOYEES OF QAZVIN'S MUNICIPALITY'S FIRST AND SECOND REGIONS)

<sup>a</sup>ABBAS HAJIFATHALI, <sup>b</sup>ZAHRA AGHAZADEH, <sup>c</sup>AMER DEHGHAN NAJMABADI

<sup>a</sup> *PhD. Candidate in International Entrepreneurship, Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran*

<sup>b</sup> *PhD. Candidate in International Entrepreneurship, Department of Management, Qazvin Branch, Islamic Azad University, Qazvin, Iran*

<sup>c</sup> *Young Researchers and Elite Club, Tehran Markazi Branch, Islamic Azad University, Tehran, Iran*

Email: <sup>a</sup> *Abbashajifathali89@gmail.com,*

<sup>b</sup> *Zahra.aghazadeh@gmail.com,* <sup>c</sup> *amerdehghan@ut.ac.ir*

**Abstract:** The present research was aimed to examine the effect of structural capitals in organizations on entrepreneurial orientation. Research method was practical in terms of objective; in terms of data collection method, it was descriptive-correlational; and in terms of the type of collected data, it was a quantitative research. The statistical population of the present study consisted of employees of Qazvin's municipality's. From them, 130 individuals were selected as sample size using a Stratified Random Sampling method and Cochran Formula. Data analysis was done using a Partial Least Squares method and Smart PLS 2 software in two sections: measurement model and structural model. Results show that structural capitals in the organization have a positive and significant effect on entrepreneurial orientation in organizational members.

**Keywords:** Entrepreneurial orientation, Structural Capital, organizational culture, organizational processes, information systems, and intellectual property

### 1 Introduction

In recent decades, evolutions in competitions and uncertainties in environments have caused big organizations with little structural and methodological changes to be unable to compete with small organizations which have greater flexibility, speed, and innovation (Jenkins, 2009; Kontinen & Ojala, 2011). Societies pay particular attention to organizations that encourage entrepreneurship and glorify peoples' talents. Today, organizations are increasingly exposed to situations which make it necessary for them to resort to entrepreneurial activities (Shepherd et al., 2009). Organizations must provide an atmosphere where the whole organization experiences entrepreneurial spirit, leading to entrepreneurial activities in individuals and groups. Hence, different organizations are willingly developing entrepreneurial activities among employees.

There have been studies in which intellectual capital is considered as one of the factors affecting entrepreneurship (Talebi et al., 2015). Organizational members' intellectual capital has been introduced as a set of intangible intellectual assets such as knowledge, skills, technology, experience, and communicational power. Intellectual capital has certain dimensions such as human capital, structural capital, and relational capital (Moon & Kym, 2006). In conducted studies, the effect of structural capital has not been referred to as a dimension separate from intellectual capital; and it seems that there is a gap in studies connected to this subject. Therefore, the present study is trying to fill the gap. Hence, it has been tried to answer the question; "Do structural capitals affect individuals' entrepreneurial orientation?"

### 2 Literature Review

#### 2.1 Entrepreneurial orientation

Organizations increasingly do entrepreneurial activities in today's dynamic world of competitions, in spite of fast global changes, in order to survive and achieve competitive advantage (Covin & Kuratko, 2008). Today, entrepreneurship is considered as one of the tools of development, because the presence of

entrepreneurs helps to provide the ground for success. According to Naman and Slevin (1993), companies in challenging environments are more willing to be innovative, take risks, and be leading than those in static environments. An entrepreneurial organization is constantly ready and able to adapt itself to the many external changes in order to make its plans flexible and adaptive to changes in environmental needs. Most entrepreneurship scholars believe that organizations can perform better if they have entrepreneurial orientations (Dess & Lumpkin, 2005; Naldi et al., 2007). In other words, entrepreneurial orientation includes intentions and activities of key factors in a dynamic production process, which contributes to opportunities. In their studies, Covin & Slevin (1989) introduce entrepreneurial orientation as a multidimensional construct, which can be evaluated from different perspectives (Chang et al., 2007). For instance, Miller (1983) proposed certain dimensions for describing entrepreneurial orientation; he considered entrepreneurial firms as entities that are engaged in markets which possess innovative products, including a little risk as well as being willing to be pioneers in innovations, and challenging rivals (Morris et al., 2007).

Innovation is a reflection of companies' tendency towards new ideas and creative processes, results of which might be products, services, and/or new technological processes (Li et al., 2008). Risk taking refers to companies' willingness to allocate basic resources to projects with likelihood of success or failure (Lumpkin & Dess, 2001; Baker & Sinkula, 2009). Leading organizations monitor market trends; they identify future needs of current customers; and they predict changes in demands or problems, which can lead to the possibility of forming a new company. Lumpkin & Dess (1996) added two other factors to the above-mentioned factors, which can play an important role in entrepreneurship: competitive aggressiveness and autonomy. Competitive aggressiveness refers to companies' tendency towards difficult and direct challenges with rivals in order to improve market conditions. Companies which construct their competitive status in an aggressive way in order to make profits might be able to sustain their competitive advantage in the long run, on the condition that their aim is to surpass rivals not to put them under pressure (Dess & Lumpkin, 2005). Autonomy refers to individuals and teams' direct activities to form and implement ideas (Chang et al., 2007). Factors of entrepreneurial orientation work together in order to improve entrepreneurial performance in organizations (Shan et al., 2016).

#### 2.2 Structural Capital

Structural capital of a construct refers to explicit knowledge, which flows in internal processes through employees' (human capital) implicit knowledge, skills, competencies, and experiences (Martinez-Torres, 2006); it comes in different forms such as information systems, organizational culture, and intellectual property (Moon & Kym, 2006). According to Edvinsson & Malone (1997), structural capital comes from hardware-software capabilities, database, organizational structure, organizational rights, trademarks, and other explicit capabilities in organizations, which support employees' productivity. Structural capital is referred to as a type of asset which remains in the organization even when employees leave work and go home. In other words, structural capital includes all non-human accumulations of knowledge in an organization. Bontis (1998) introduces structural capital as non-human assets and capabilities, which are used in order to meet market needs.

Moon & Kym (2006) believe that structural capital is reflected in internal factors such as organizational culture, organizational processes, information systems, and intellectual property. Because this classification comprises important internal factors

and because it refers to the importance of intangible assets, it is used by many scholars; hence, it is valuable.

The first factor is organizational culture. Organizational culture includes basic values, beliefs, and ethical principles existing in organizations, which play a crucial role in organizational management. Organizations with strong structural capital possess a culture which pushes employees to innovations through trial and error and learning from mistakes (Bontis, 1998). If values, norms, and beliefs of organizations support employees' efforts to increase creativity and innovation, it is likely that they will identify and exploit entrepreneurial opportunities. Zahra et al (2005) classify factors affecting entrepreneurship into two sets: internal factors and environmental factors. An internal factor is organizational culture. According to them, in an organization with a culture that supports creativity and innovation, organizational entrepreneurship will develop, and employees will be encouraged to identify and exploit environmental opportunities. Dimitratos et al., (2012), with the introduction of "international entrepreneurial culture", refer to organizational culture as a key to identification and exploitation of entrepreneurial opportunities in international situations. Additionally, they stated that if organizational values and norms conform to the global market's activities, it will be easy for the organization to identify and exploit opportunities. Other researchers such as Dimitratos & Plakoyiannaki (2003) and Jones et al., (2012) refer to the fact that organizations' success in identifying environmental opportunities is subject to support from organizational culture for factors such as innovation, risk taking, active learning, and networking. Hence, considering the aforementioned, the first hypothesis of the research is as follows:

First hypothesis: organizational culture has a positive and significant effect on individuals' entrepreneurial orientation.

The second factor is organizational processes. Organizational processes refer to the styles of doing organizational activities, in which individuals use existing data resources in order to perform their duties in the best possible way (Hobley & Kerrin, 2004). Bhagavatula et al (2010), referring to the effect of human and social capital on organizational entrepreneurship, stated that the fewer constraints and limitations in the way of entrepreneurship, the more creative the employees will be, and the more entrepreneurial behaviors will be seen. Li et al (2012) stated that if operation processes in organizations follow learning, inter-organizational relationships in senior management level can increase the ability to discover entrepreneurial opportunities. In another research, Gregoire et al (2010) stated that when internal processes are designed in a way that risk taking for innovations fades, and when individuals are intensely punished for their mistakes, no efforts are made to be creative and innovative,

leading to loss of entrepreneurship. Hence, considering the aforementioned, the second hypothesis of the research is as follows:

Second hypothesis: Organizational processes have a positive and significant effect on individuals' entrepreneurial orientation.

Information systems, as the third factor, refer to IT (Information Technology) in organizations; IT is used for correctly and completely managing information systems (Soh & Markus, 1995). Numerous studies have focused on the effect of information systems in the development of entrepreneurship. For instance, Shane & Venkataraman (2000) believe that it is necessary for individuals and organizations to have access to useful and valuable information obtained from business environments in order to succeed in developing entrepreneurship. In addition, Busenitz (1996) stated that the reason why some individuals are able to recognize entrepreneurial opportunities is that they are capable of gathering and utilizing useful information. Referring to the significant effect of organizational members' presence in social networks outside the organization on the increase in the ability to recognize innovative ideas, Ozgen & Baron (2007) consider shared information in networks to be a key factor which helps expand individuals' knowledge. Hence, considering the aforementioned, the third hypothesis of the research is as follows:

Third hypothesis: Information systems have a positive and significant effect on individuals' entrepreneurial orientation.

The fourth factor, intellectual property, is the most tangible and obvious dimension of structural capital, because it is legally maintained in the organization (Moon & Kym, 2006). Intellectual property is a type of asset which is accomplished through incorporation of inventions and trademarks in every organization. Siegel et al (2007) report that with an increase in the rate of commercialization of intellectual property rights in American/European universities and companies over the last decade, the importance of knowledge and technology transfer strategies for quickly discovering and exploiting ideas has increased. In addition, Friedman & Silberman (2003) refer to the fact that with individuals' conformations to the maintenance of intellectual properties such as new inventions, organizations' competitiveness increases through identification and exploitation of entrepreneurial opportunities. Hence, considering the aforementioned, the fourth hypothesis of the research is as follows:

Fourth hypothesis: Intellectual property has a positive and significant effect on individuals' entrepreneurial orientation.

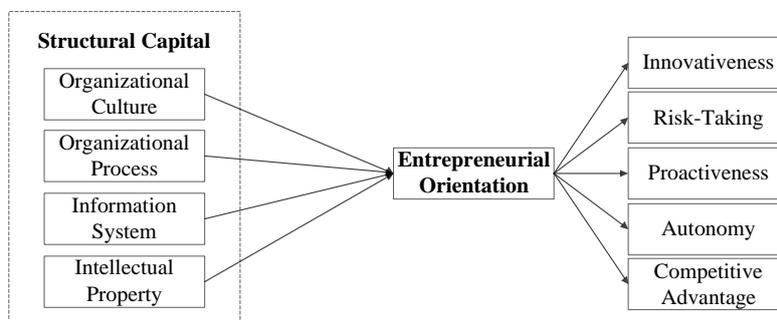


Fig 1. Conceptual Model

### 3 Research Methodology

The present research was practical in terms of objective; in terms of data collection method, it was descriptive-correlational; and in terms of the type of collected data, it was a quantitative research. In order to analyze data obtained from questionnaires, a Structural Equation Modeling method was used along with a Partial Least Squares method (PLS-SEM) and Smart PLS software. The latent variable of structural capital was examined through Moon and Kym's (2006) standard questionnaire (19 items); in addition, the latent variable of entrepreneurial orientation was examined through D-Clerk's et al (2013) standard questionnaire (7 items). The statistical population of the present study consisted of employees in Qazvin's municipality' first and second regions (200 individuals), 130 of whom were

selected as sample size, using a Stratified Random Sampling method and Cochran Formula.

In order to examine the reliability of the questionnaire, criteria of a Partial Least Squares method were used. In this method, reliability is measured using two criteria: 1) Cronbach's Alpha, 2) Composite Reliability (CR). Cronbach's alpha coefficient expresses the ability of the questions to properly express corresponding dimensions. Composite reliability coefficient determines the correlation between the questions of one dimension in order to sufficiently fit measurement models (Fornell & Larcker, 1981). The results related to the reliability of the questionnaire have been shown by the two mentioned criteria in table 1; and we can see a favorable level of reliability.

Table 1: Reliability of measurement tool

Variables	Cronbach's Alpha	Composite Reliability
Organizational Culture (OC)	0.78	0.78
Organizational Process (OP)	0.86	0.82
Information System (IS)	0.79	0.73
Intellectual Property (IP)	0.76	0.85
Entrepreneurial Orientation (EO)	0.91	0.78

Validity was calculated using convergent and divergent validity as well as criteria that are exclusive to the Partial Least Squares method. Convergent validity was examined using AVE criterion (Average Variance Extracted); and if this criterion is greater than

0.4, convergent validity of the measurement tool will be approved (Magner et al., 1996). According to table 2, all values show that the convergent validity of the questionnaire is favorable.

Table 2: Results of AVE value for research constructs

Variables	OC	OP	IS	IP	EO
AVE	0.56	0.64	0.47	0.53	0.69

For measuring divergent validity, Fornell and Larcker (1981) have recommended comparison of AVE root of each construct with correlation coefficients of other constructs. As it can be

seen in the following matrix (table 3), the values on the main diameter are greater than low values, which shows that the divergent validity of the constructs is favorable.

Table 3: Matrix of comparing AVE root with correlation confidents of constructs (divergent validity)

Variables	OC	OP	IS	IP	EO
OC	0.74				
OP	0.41	0.80			
IS	0.52	0.27	0.68		
IP	0.37	0.39	0.34	0.72	
EO	0.42	0.26	0.209	0.63	0.83

### 4 Research Findings

After examination of reliability and validity, here, the cause-and-effect relationship between structural capitals and entrepreneurial orientation is examined using Smart PLS 2 software. Hence, in order to test research hypotheses, the variable of structural capitals was designed as an exogenous construct, and the variable of entrepreneurial orientation was designed as an endogenous construct in a certain model. The output of the model included standardized coefficients and significance coefficients of "t" (the values in the brackets), which have been presented in figure 2. When values of "t"

are greater than +1.96, it is shown that the corresponding parameter is significant, and that research hypotheses are approved (Vinzi et al., 2010). According to figure 2, the "t" coefficient between research constructs is greater than 1.96, which shows that research hypotheses are significant. Additionally, the standardized coefficient shows what percentage of changes in entrepreneurial orientation is expressed by structural capitals. Hence, organizational culture expresses 67 percent of changes in entrepreneurial orientation; organizational processes express 58 percent of changes; information systems express 74 percent of changes; and intellectual property expresses 31 percent of changes.

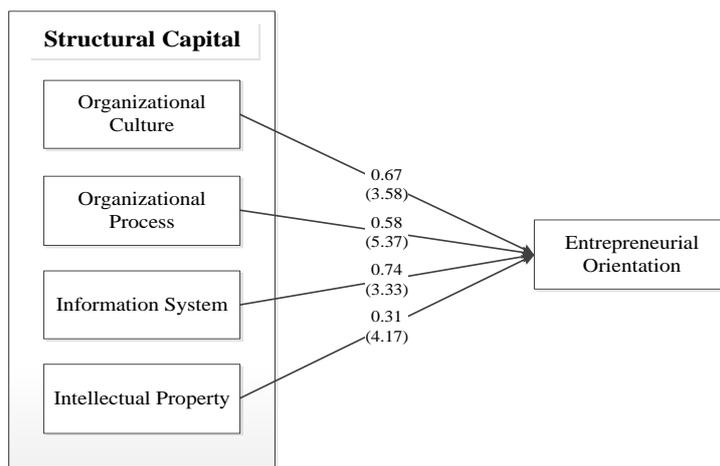


Fig. 2: Output of Smart PLS software for examination of research hypotheses

## 5 Conclusion

Obtained results showed that structural capital affects entrepreneurial orientation, and that in an organization with strong structural capitals, entrepreneurial activities are done more easily. Ramos-Rodriguez et al (2010) approve of the effect of intellectual property on entrepreneurship, and believe that employees' access to external knowledge is the key to reinforcement of the ability to recognize entrepreneurial opportunities; they also believe that structural capital is an effective factor too. According to them, the knowledge flowing in organizational structures and processes helps facilitate the process of acquiring knowledge and consequently improving entrepreneurial behaviors among employees. Edvinsson & Malone (1997) have introduced structural capital as a type of explicit capability, which supports employees' productivity through enhancing entrepreneurial capabilities. Furthermore, Barringer & Ireland (2007) and Cooper & Park (2008) refer to the important effect of prior experiences in entrepreneurship. The results of their studies indicate that employees with prior experience in identifying and exploiting opportunities are considered as capitals for organizations. If this human capital is managed correctly and sufficiently, it can become a precious structural capital for organizations.

Hence, it is recommended that companies design a particular mechanism for maintaining knowledge formed through organizational members (human capital) and use it in organizational processes, considering the importance of structural capital and its effect on entrepreneurship. It is also recommended that organizational values and norms be used in order to enhance individuals' creativity and innovation, as well as preserving organizational members' intellectual property rights in the elements of organizational culture. Finally, it is recommended that companies' information systems be designed in a way that employees can have free access to information in order to share knowledge in internal elements, and develop entrepreneurship.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## INVESTIGATE THE EFFECT OF SHORT-TERM BANKING RELATIONSHIPS ON FINANCIAL DISTRESS OF LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

<sup>a</sup>MARZIEH DOOSTI IRANI,<sup>b</sup>JAMSHID PEIK FALAK,  
<sup>c</sup>MOHSEN AZHDAR

<sup>a</sup>MA in Accountancy of Islamic Azad University, Shahrekord Branch (Corresponding Author)

<sup>b</sup>Faculty member and assistant Professor of Islamic Azad University, Shahrekord Branch

<sup>c</sup>Faculty Member of of Islamic Azad University, Shahrekord Branch

Email: <sup>a</sup>Ma.dosti66@yahoo.com, <sup>b</sup>peikfalak@yahoo.com,  
<sup>c</sup>Azhdar.mohsen@gmail.com

**Abstract.** Financial decisions are important to all natural and legal persons, therefore bank is known as a place that always takes the proper decision. Companies that are experiencing turmoil and the crisis is on the verge of collapse and financial resources they need to prevent it, so to reduce the risk of creditors and credit relationships that have died can reduce this risk. Present study investigates the effect of financial turmoil on banking relationships listed companies in Tehran Stock Exchange. For this purpose 132-stock company in the period 1384 to 1393 were examined. According to the statistical methods applied at 95% using regression analysis, findings showed that short-term banking relationships bank will reduce the amount of financial turmoil this year and next.

**Keywords:** Banking Relations, Banking Relations Long-Term, Short-Term Banking Relationships and Financial Distress

### 1 Introduction

One way to avoid bankruptcy, predict or showing signs of financial distress. Referring to the situation in financial distress that the company is unable to meet the obligations and pay debts or faces problems; of course this problem now is not the form of reduced liquidity surplus assets and liabilities of the financial turmoil may be temporary; but if the financial situation does not improve, it may be bankruptcy.

Various factors such risky investments and the company's financial turmoil and some of the capital structure as well as the correct decisions may reduce the financial turmoil. Capital structure, including securities issued by public, private investments, bank debt, commercial debt, leases and so well.

According to signaling theory and theoretical foundations of bank financing compared to public debt, in reducing the agency problems and issues related to information asymmetry is most effective. In addition to providing a good image of the company established banking relationships, ability to obtain external financing increases. Firms with more bank debt, more easily have access to foreign funds and financial turmoil and a lack of funds, they will be reduced.

Given the importance of financial leverage and bank debt that the company eventually has an important role, can identify the implications, strategies for control and guidance of this important element in improving the company's financial situation can be identified. In order to extend and integrate existing literature, this study attempts to expand the understanding of bank debt Companies listed on Tehran Stock Exchange, trying to reduce the impact of financial turmoil on banking relationships to be studied.

### 2 Theoretical Foundations

Banking relationships, when the lender repeatedly that extends credit to a company. Frequent lending to a company, by raising awareness information to the lender than the borrower's ability to repay the loan, can reduce the information asymmetry between the borrower and the lender. Information with respect to the debtor companies, including information about management's ability to deal with adverse situations and how to act in inappropriate and repay the debt, internal controls and financial

statements of the company is spending. (With Company informed of this information asymmetry is reduced.)

Information asymmetry between the lender and the borrower when the company is facing financial distress and uncertainty about its ability to repay can be increased. Companies that have the financial distress to remain financially strong, have need of money and capital, hence, the company will rely on bank until the bank is interested in preserving the procedural income through this way. (Rosen Feld, 2014)

The financial turbulence is the general term used to refer to the Terms of Use that the company is unable to meet the obligations and pay debts or to have problems and in this case the company's liquidity is lower than its current liabilities and obligations, companies financial turmoil may be temporary, but if it does not improve the company's financial situation may lead to bankruptcy. (Miraki, 2012)

Given that the financial turmoil imposes costs on all company stakeholders (creditors, owners, investors and even government, etc.) Identify factors affecting the decrease in financial distress can be prevented incur such costs. Generally, identifying factors that reduce the company's financial distress and prevent their bankruptcy is very important and can be a turning point for the company.

Two views regarding the impact of banking relationships (loan) on financial distress company. The first view is that corporate banking relationships, when the bank decides to companies that are experiencing financial distress loan, the banks of the great advantages of information. The continued granting loans information asymmetry between borrower and lender can reduce, banks by appropriate information regarding the in fact that the company acquires the ability to repay the debt at any facilities, reduce information asymmetry.

It should be noted that short-term banking relationships, is longer, more and more accurate access to this information by banks, because the company when the facility received the short run, are required to provide financial information to the bank to close the deal also new. If you have a full disclosure of this information and their reliability, this can include information management capabilities to overcome perilous situations, internal controls and the accuracy of the financial statements of the company.

In fact, this information will allow the banks to companies that are experiencing financial distress trust and this ability to repay obligations on the part of these companies is stabilizing. The second view is that, unlike the first comment by Weinstein and Yafeh (1998) is provided, show that although lenders to make credit company, but they agree that, given that companies are experiencing financial distress will receive loans more difficult circumstances and conservative investment policies adopted by banks shall be unable to achieve profitability in the future.

This issue weakened the company's future status and value to banking relationships, for example, including bank policy is that if the financial crisis is now in the range, creditors with collateral heavier shorten the payback period on its bank insurance contracts and this for creditors biggest advantage is that there is information asymmetry is eliminated and the outstanding bank debt to avoid.

It is derived from the theory of insurance, (Mehrani, 2009) and is now quoted on the banking system's main problem the Bank of bank debt outstanding is that banks are not able to reclaim them. In general, financial analysts and financial turmoil of the financial crisis as the main risk to firms and investors refer arrives, because in the event that all groups will be affected in

some way associated with the company. Creditors, providers of finance, banks may be an important part of your quest to lose.

Investors will be worthless assets and employees will lose their jobs. An overview of the phenomenon of crisis and financial distress, losses to society will exhibit overt and covert bankruptcy. Will be a waste of resources and lack of trust is a barrier to the development of economic and social future. Based on the importance crisis and financial distress is obvious. If this unpleasant phenomenon is predictable, perhaps it can be prevented from occurring or to minimize its impact.

Developing companies banking relationships makes further investments do and can also inhibit financial crisis and financial distress. According to Central Bank statistics on Iranian companies, also major source of financing through debt from banks and financial institutions active in this field is, which examines how corporate behavior in loans from the bank and the bank's response to this request and finally the effects of facilities granted by banks to companies that are experiencing financial distress in the short and long term, results can be an important and useful to the users.

Given the importance of financing and the significant role that the company eventually, can identify variables affecting it and guidance and control solutions, is also important to identify the positive and negative consequences. Much research taking loans from financial companies as a risk indicator variable or financial condition of the company have been identified. In addition, many arguments to get financing associated with the company's growth opportunities there.

According to the theory (theory) signaling of bank financing compared to public debt, in reducing the agency problems and issues related to information asymmetry is more effective and banks in monitoring companies to collect and process certain information appear that compared with other lenders, enabling them to be more effectively monitor the borrower and this may reduce the amount of financial distress. (Ozkan and Ozkan 2004)

In order to extend and integrate existing literature, this study attempts to develop an understanding of the financial and banking relationships facilities Companies listed on Tehran Stock Exchange, linear trying to influence banking relationships examined the financial indignation. According to the stated purpose of this study is to answer the question, whether banking relationships and significant adverse impact on the Company's financial distress or not?

### 3 History Research

Internal investigations: Abbasi (2014) study entitled "The relationship between content components accounting profit with financial distress and information asymmetry" to do. In this research effect of financial distress, bankruptcy intangible assets and level of information content and operating cash flows have been examined in determining prices and stock returns. For this purpose, the data distressed 64 companies and 64 healthy companies listed on the Tehran Stock Exchange during the period 87 to 92 are used.

To test the hypothesis in relation to the stock prices of panel data with random effects in relation to not see the stock return of the used panel data. Research results show that financial distress significantly reduces the information content of prices of all components of earnings and stock returns have been in. This reduction in content is not related to the tangible assets and also for companies with high information asymmetry and for companies with low information asymmetry these rates are the same.

Also level of bankruptcy and informational content discretionary accruals there is a significant relationship, while the level of earnings in bankruptcy and information content not see all the components of stock returns no relationship. Pour Ali, et al

(2013) study, "Relationship between the degree of financial leverage, financial distress of listed companies in Tehran Stock Exchange" did. In this study, the company's financial leverage as the main lever detected that explains the company's financial distress.

The study society consisted of listed companies in the stock during the period 2007-2011. After sampling 32 companies were selected by systematic elimination method. Findings show a significant negative relationship between leverage and the degree of helplessness. Yazdani (2012) study entitled "Relationship bankruptcy, financial distress, manage growth and free cash flow of listed companies in Tehran Stock Exchange" to accomplish. This study is correlational research method and survey method of data collection from websites of Tehran Stock Exchange.

The results of tests showed a significant negative correlation between excessive growth and excessive growth and financial distress and bankruptcy. Also characterized by rising financial distress, bankruptcy increases. While at the same time due to excessive growth and free cash flow on the strength of this relationship adds. Other companies that result in excessive growth and free cash flow less strong relationship exists between bankruptcy and financial distress.

Khajavi, et al., (2011), a study entitled "A comparative study of the quality of financial reporting and non-distressed distressed companies listed in Tehran Stock Exchange" did. This study compared the quality of financial reporting distressed and non-distressed companies in Tehran Stock Exchange 1381 to 1388 as well. To compare the quality of financial reporting and independent t-test for equality of variances in the second test of Levene's test was used at a given society.

The results show that the quality of financial reporting in non-distressed firms listed in the Tehran Stock Exchange, in compared with failed firms are less and less stable. It can be concluded that the findings obtained or non-distressed companies active in the Tehran Stock Exchange, they attempt to manipulate earnings or economic conditions in the country have problems with the country's projected cash flows and reduce the quality of financial reporting in non-distressed companies has been active in the stock.

Hosseini (2011) study entitled "investigate the effect financial leverage and capital intensity related to the financial distress of listed companies in Tehran Stock Exchange". This study, after controlling for variables such as size, profitability and cash assets, the impact of capital intensity (capital of the Company) on the relationship between financial leverage and financial distress all companies listed on the Tehran Stock Exchange during the period 2002-2009.

In this study measured the financial distress Altman model. Findings indicate a significant and negative relationship between leverage and resonator and financial distress. On the other hand significant correlation between the intensity of capital and financial distress is not and finally the results showed that capital intensity is a decisive moderating effect on the relationship between financial leverage and the financial distress of listed companies in Tehran Stock Exchange.

Farzinavash and Wealthy (2010) in a study titled "Global Financial Crisis experiences and lessons for the Iranian economy." Showed that different countries according to economic conditions and the vulnerability of the financial crisis, various economic policies such as reducing interest rates, supporting small businesses, extension of credit, plans to guarantee deposits and debt financing by reducing the interest payments will have to work in order to deal with the crisis.

External research: Höwer (2016) in a study entitled "The role of banking relationships when companies are in financial distress," German firms began to study. A total 319,423 company during the years 2013 to 2000 studied treaty. Tobit regression was used

to test the hypothesis. The results showed that the banking relationship reduces the financial distress. They believe the dissolution of banks to finance more efficient decision making and the ability to depend on the characteristics and motivations of banks.

They also believe that banking relationships and enhance the company's ability to reduce the financial distress. Teruel Garcia et al (2014) study entitled "The Impact of quality in achieving commitments on bank loans" to study Spanish companies involved. To this end, in 1281 the number of companies examined in the years 2005-1988. Two-stage least squares regression model to test their assumptions used.

The results showed a positive association between the quality of the bank's obligations and liabilities. This communication even controlling for other factors that affect access to bank loans and to check whether the correlation between two variables inherent in bank loans and established the company's commitment to quality. The results show that the benefits of high precision, information asymmetry between banks and corporations reduce the loan applicant.

Rosen Feld (2014) in a study entitled "The impact on the future of banking relations firms with financial distress" Showed that support borrowing in the six months before the financial distress significantly increases the probability of transition from distress; thereby reducing the effect of this (lack of education loans) now increases the turbulence intensity for the Altman Z model were calculated on the basis of their financial distress.

Young et al (2012) study entitled "Effect of predictability of earnings on bank debt contracts" did. They used a sample of 8022 bank loan agreement of US companies, concluded that companies with more predictable earnings, more favorable loan terms such as lower interest rates, longer maturities, collateral clauses restrictive and less.

The results also indicated that the link between the predictability of earnings and the cost of bank loans, to access private information about borrowers, competition between banks and bonds and depends on company size. Lee et al (2011) study entitled "Effect of concentration of capital in the industry on the relationship between leverage and financial distress restaurants in America" aims at testing the subject of financial distress in America's restaurant industry. Data collection firms over the period 2008-1990 in America.

Check the degree of financial distress with z scores measure the results indicate a positive effect modifier of the relationship between financial leverage and financial turbulence is the focus of capital. They believe that the company's leverage (leverage) as a main factor that explains the company's financial distress is known, and the fact that leverage increases the degree of financial distress.

Cho et al (2010) study entitled "Effects of Financial Distress and capital structure on work outside directors" to review the conflict of interest between shareholders and debt holders by check work outside directors when a company is experiencing financial distress or facing discuss a high financial leverage and came to the conclusion that external managers with higher financial distress less effort to control their financial levers.

Charalambakis et al (2008) study entitled "financial distress costs and capital structure" of 143,562 years-the company during the period 2002-1950 were examined. They use modified Altman z-score as a benchmark to estimate the probability of financial distress concluded, there is a positive relationship between leverage and the possibility of failure, so that no matter how helpless higher financial leverage is higher.

In fact, they are using the estimated probability of financial distress as a proxy for the costs of the financial crisis, found that the dynamic leverage the relationship between financial crisis and the leverage is very important. They were removed when the dynamic leverage the direct and positive relationship between financial distress and leverage achieved. Also included in the model when the dynamic leverage, and leverage the relationship between the probabilities of financial distress were negative. Our results show that the dynamics of leverage (capital structure) companies in financial distress very important asset.

#### 4 Research Methodology

Due to the expected results of this research in the decision-making considerable financial managers, investors and other stakeholders should be, the purpose of this study from the perspective of applied research component, as well as the investigation discuss the relationship between several variables, considering the nature and procedure of the kind of research is descriptive. All companies listed in the Tehran Stock Exchange, constitute the study society.

A sample of the systematic elimination method is used, in this study, companies with the following characteristics were chosen as examples:

1. From 2004 to 2014 are present the stock.
2. Firms to the banks and financial intermediation, leasing and other companies not to invest.
3. In order to be comparable information, the fiscal year ending 29 March.
4. Trading interval not more than 4 months.
5. Data and information is complete.

#### 5 Hypotheses and regression models

1. The amount of short-term banking has opposite relationships and significant effect on financial turmoil this year.

$$F \quad (1)$$

2. The short-term banking has relationships and significant adverse impact on the upcoming year's financial distress.

$$(2)$$

Here:

$FD_{it}$  = financial distress i and t;

$FD_{it+1}$  = financial distress i d t + 1;

$STBR_{it}$  = short-term bank relations firm i in period t;

$OPM_{it}$  = operating profit margin i in period t.

$ATA_{it}$  Tangible assets of company i at time t.

$ATU_{it}$  = The total asset turnover ratio of company i at time t.

$ICR_{it}$  = Company interest coverage ratio at period t.

$CMV_{it}$  = Changes in the market value of company i at time t.

Size<sub>it</sub> = Size of the company i at time t.

$\alpha$  = Fixed value model.

$\beta$  = Constant variable.

$\varepsilon_{it}$  = The model error.

### 5.1 Studied variables

The variables used in this study are of three types: the dependent variable, independent variable and control variable. The dependent variable is the variable that to happen explain or predict their variability. The independent variable is a characteristic that its effect on the dependent variable is examined by the researcher. Variable control variable is the independent variable on the dependent variable to distinguish the effects of other variables, are examined. Accordingly variables used to explain the impact of the financial indignation banking relationships, as Table 1 have been used.

Table 1 List of studied variables

Symbol	Measurement criteria	Name of variable	Kind of variable
	$Z_{i,t} = 3.3(EBIT_{i,t}/TA_{i,t}) + 1(S_{i,t}/TA_{i,t}) + 1.4(RE_{i,t}/TA_{i,t}) + 1.2(WC_{i,t}/TA_{i,t}) + 0.6(ME_{i,t}/TL_{i,t})$	Financial distress	Dependent
	The ratio of short-term debt (credit) bank completely debt	Short-term banking relationships	Independent
	Operating profit sharing virtually Sale	Operating profit margin	Controlling
	Fixed assets virtually divided assets	Visibility of assets	
	Please virtually divided assets	Asset turnover ratio	
	Earnings before interest and taxes to interest expense (financial)	Interest coverage ratio	
	Market Value Market Value difference this year compared to the previous period	Changes in market value	
	The natural logarithm of market value	size of the company	

### 5.2 Analysis tools

To analyze the data from this study will be used descriptive and inferential statistics. To describe and summarize the collected data, descriptive statistics (mean, variance, correlation, covariance,) and inferential statistics were used to analyze and test hypotheses will be. In this study, F-Leamer tests and Hausman, to determine the type of panel data and test t, to determine the significance of the relationship between each independent variable and the dependent variables to test F with a little difference, to test the significance of the overall relationship regression equations, also from coefficient of determination  $R^2$  adjusted for the relationship between dependent and independent variables will be used. Also for analyzing data mining results, Excell software and Eviews and Stata will be used.

### 6 Research findings

#### 6.1 Descriptive Statistics

Table 2. Descriptive statistics of variables in this model for 132 sample companies, 10 years shows that the descriptive parameters for each variable separately is indicated. These parameters generally include data on central indexes such as mean, median, maximum, minimum, and distribution of information on indicators such as standard deviation, skewness and kurtosis is. Most important central index that represents the average balance and center of gravity point distribution and index the data center is perfect for showing off.

For example, the average variable interest coverage ratio is 152.6649 shows that more data on these variables are concentrated around this point. Another indicator of central median that shows the status of the community. As shown in Table 2 can be seen mid-term relationships between the bank and size of the company, respectively 0.0000 and 5.6300 is shows that half of the data is less than this amount and half are greater than this amount.

In general, scattering parameters, the criteria for determining the distribution of each other or the distribution of data compared to the mean. Among the most important scattering parameters, the standard deviation. Rate of asymmetry of the frequency curve is called skewness. If the coefficient of skewness is zero, and if the coefficient is positive, society is completely symmetric, skewed to the right and left if there will be negative skewness.

Skewness is positive for all variables in this model. Most variable interest coverage ratio and variable short-bank relations are skewed and variable operating profit margins skewed to the left and right skewness variable interest coverage ratio and the size of their deviation from the center of symmetry. Elongation rate of frequency curve to curve the normal variable is called the land or strain.

If the strain is nearly zero, frequency curve in terms of strain-balanced situation will be normal. If this value is positive, highlighting curves if it is negative, the curve is flattened. Strain is positive for all variables. Most prominent short relationship banking assets and variable interest coverage ratio less prominence than normal curve.

Table 2. Descriptive statistics research variables

Kurtosis	Skewness	SD	Minimum	Maximum	Mean	Name of variable
17.9511	2.4330	2.218591	-6.4300	23.7500	2.669659	Financial distress
2.3621	0.2837	0.19736	0.0000	0.9000	0.351159	Short-term banking relationships
7.9485	2.3000	0.142748	0.0000	0.8100	0.078591	Operating profit margin
78.0408	3.39485	0.19881	-1.2200	3.7100	0.205152	Visibility of assets

3.5532	0.96708	0.186802	0.0000	0.8900	0.271894	Asset turnover ratio
8.6809	1.68165	0.435455	0.0200	3.8500	0.848114	Interest coverage ratio
1291.137	35.75476	4295.815	-3660.030	155306.500	152.6649	Changes in market value
234.4883	11.2532	1.386522	-0.9200	32.8300	0.371833	size of the company
3.4469	0.3856	0.614105	4.0200	8.0100	5.640871	Financial distress

Source: research findings

**6.2 The first hypothesis test result**

To test the first hypothesis, the dependent variable, the financial distress this year with the independent variable (short-term banking relationships) and control variable (operating profit

margin, asset visibility, asset turnover ratio, the company's market value changes and interest coverage ratio, size of the company) were examined. Select the type of model to test results in Table (3) is provided. According to the table to test the first model of panel data and fixed effects model was used.

Table 3. Summary pattern of model estimation first hypothesis

Significance	T Statistic	Standard error	Coefficients	Variables
0.0000	-16.29163	0.426197	-6.943441	Intercept
0.0406	-2.050291	0.129258	-0.265017	Short relations bank
0.0000	11.15456	0.152575	1.701909	Operating profit margin
0.0000	-4.859688	0.18163	-0.882666	Tangible assets
0.0000	28.37748	0.71797	2.037414	Asset turnover ratio
0.0000	8.371867	0.012805	0.107205	Changes in market value
0.2313	-1.197802	0.0000352	-0.0000422	Interest coverage ratio
0.0000	19.17465	0.071863	1.377941	size of the company
0.0000	17.51984	0.028059	0.491597	The elimination of autocorrelation
0.8965 :Adjusted coefficient of determination		0.9086 :Coefficient of determination		
1.9624 :Durbin Watson		0.0000 :Significance F		74.9762 :F Statistic

Source: research findings

According to the p-value obtained for the regression equal to zero and less than 5%, therefore the null hypothesis that all the regression coefficients are zero is rejected at the same time and this shows that all the regression coefficients are not zero simultaneously. Also, the Durbin-Watson (AR after entering the first level) in the range of 1.50 to 2.50, which indicates the absence of autocorrelation in the data.

Coefficient of determination model 0.9086 shows that 90.86% Changes dependent variable (the financial distress this year) is followed by the independent variable and control. Given that a significant bank of the Short variable coefficient is less than 0.05, so it can be concluded at the level of 5% short of indignation banking financial year there is a significant impact. The first model is the result of research.

It should be noted that the control variables, the operating profit margin (OPM), the visibility of assets (Ata), asset turnover ratio (ATu), changes in market value (CMV), firm size (SIZE) has a significant impact indignation year because the t-statistic p-value variables operating profit margin, asset visibility, asset turnover ratio, changes in market value, size is less than the level of 0.05. (P-value <0.05)

Given that achieved a significant level of short-banking relationship is significant for the independent variable, i.e. short-term banking relationships has a significant impact on the financial distress. According to the obtained coefficient is negative for the independent variable (short-bank relations) The impact of financial distress on the company's short-term banking relationships is negative; in other words, by increasing the intake of short-term facilities, the company reduced financial distress and an inverse relationship between short-term banking relationships and financial distress.

**6.3 The second hypothesis test result**

To test the second hypothesis, the dependent variable, the financial distress next year with the independent variable (short-term banking relationships) and control variable (operating profit margin, asset visibility, asset turnover ratio, the company's market value changes, interest coverage ratio, firm size) about investigated. According to the table to test the second hypothesis of panel data and fixed effects model was used. The second hypothesis test results in Table (4) is provided.

Table 4: Summary template model second Hypothesis

Significance	T Statistic	Standard error	Coefficients	Variables
0.0012	3.260765	0.737005	2.403201	Intercept
0.0000	-5.06244	0.199109	-1.00798	Short relations bank
0.0198	2.334047	0.276141	0.644526	Operating profit margin
0.0005	-3.5209	0.289553	-1.01949	Tangible assets
0.0000	7.293806	0.123855	0.903372	Asset turnover ratio
0.0511	1.953386	0.027066	0.05287	Changes in market value
0.6216	0.493758	0.000212	0.000105	Interest coverage ratio
0.9696	-0.03814	0.125642	-0.00479	size of the company
0.0000	0.493576	0.039741	0.258064	The elimination of autocorrelation
0.753273 :Adjusted coefficient of determination		0.78578 :coefficient of determination		
2.092239:Durbin-Watson		0.0000 :F Significance		24.17252 :F Statistic

Source: research findings

Regarding the amount of p-value obtained for the regression equal to zero and less than 5%, therefore the null hypothesis that all the regression coefficients are zero is rejected at the same time and this shows that all the regression coefficients are not zero simultaneously. Also, amount of Durbin-Watson (AR After entering the first level) in the range of 1.50 to 2.50, which indicates the absence of autocorrelation in the data.

Coefficient of determination to show that model 0.78578 78.578% Changes dependent variable (the next year's financial distress) is followed by the independent variable and control. Given that a significant bank of the Short variable coefficient is less than 0.05, so it can be concluded at the level of 5% of the Short-bank financial indignation next year there is a significant impact.

As a result, the second hypothesis is confirmed. It should be noted that the control variables, the operating profit margin (OPM), the visibility of assets (Ata), asset turnover ratio (ATu), changes in market value (CMV) next year has a significant impact indignation; because the t-statistic p-value variables operating profit margin, asset visibility, asset turnover ratio, changes in market value is less than the level of 0.05. (P-value <0.05)

In general, given the significant level of short-banking relationships obtained for the independent variable is significant, i.e. short-term banking relationships has a significant impact on the financial turmoil next year, according to the coefficient obtained for the independent variable is negative (short-bank relations) The impact of short-term banking relationships over the next year is also negative financial distress; in other words, the findings show that the company's short-term debt problems reduces their financial distress.

Perhaps because of an increase lenders monitoring the performance of managers, or concerns about the exposure of their inability managers which there is a loss position. On the other hand findings showed that coefficient obtained for the independent variable (short relationship banking) in the second version of the first model, which suggests which short-bank relations next year than this year will be more effective and reduces the financial distress.

The overall results obtained from these two hypotheses compared to the results of research Pour Ali and colleagues (1392), Hussein (1390), Höwer (2016) and Rosen Feld (2014) is aligned and compared to the results of research Lee et al. (2011), Charalambakis et al (2008) is inconsistent.

## 7 Recommendations based on research findings

1) The results showed that increasing the intake facility (short-term) financial distress this year and reduce future; therefore, corporate executives (especially to managers who have their company's financial distress) and recommended to other users, which to decide to move out of the financial distress credit and financial facilities, consider, as this increases which were associated performance monitoring Director of the Bank, company's ability to increase investment and prevent the bankruptcy of the company.

2) Due to banks and financial institutions have a risk management committee shall adopt decisions on granting loans, leading to calls for strict conditions on granting their facilities, faced with such a situation with more regulatory and corporate managers face, therefore, it is recommended that owners, managers are required to provide the required financial resources to use their facilities, because this method can be regarded as a regulatory mechanism.

3. Applicants choose facilities based on their proposed rate of return on the project is the subject of contracts. In this case, the applicant's assessment of the profitability of the facility should be submitted to the bank and declare their desired activity. In this

situation, banks are faced with financial constraints in providing, with interest rates suggested by the applicants facilities, able to choose plans with higher profitability and lower risk are that this may reduce problems of financial distress companies applying for loans, so the managers of companies experiencing financial distress, it is recommended that special attention be facilities based on contracts.

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## THE RELATIONSHIP BETWEEN ORGANIZATIONAL COMMITMENT AND JOB STRESS AND JOB SATISFACTION OF TEACHERS EMPLOYED IN DEHDASHT DEPARTMENT OF EDUCATION, IRAN

<sup>a</sup>TAHA TARAN, <sup>b</sup>SEPIDEH FATHI

<sup>a</sup> Corresponding Author, M.A. of Industrial and Organizational Psychology, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran (Corresponding Author)

<sup>b</sup> M.A. of Educational Psychology, Tehran University, Tehran, Iran

Email: <sup>a</sup>tetaran54@gmail.com, <sup>b</sup>sepidehfathi32@yahoo.com

**Abstract.** The present study sought to investigate the relationship between organizational commitment and job stress and job satisfaction of teachers. The study population consisted of 2200 teachers employed in Dehdasht Department of Education in 2015. Sampling was done using cluster random sampling technique and the number of samples was obtained as 327 cases through lottery using Morgan Table among which 167 cases and 163 ones were males and females, respectively. Data were analyzed using Pearson correlation coefficient, ANOVA, t-test and stepwise multiple regression analysis. The findings indicated that there was a negative and significant relationship between organizational commitment and job stress. Job satisfaction in women was significantly more than that in men.

**Keywords:** organizational commitment, job stress and job satisfaction

### 1 Introduction

Today the crucial importance of jobs in various aspects of life is obvious to everyone. Since job it is directly related to physical-mental health and provides the ground for the satisfaction of his non-material needs in addition to a means to meet the cost of living, because, firstly, job characteristics fit the employed person, and second the person feels self-esteem, capability and effectiveness in his job. In other words, one experiences a sense of desirable job success. To meet the needs of the people under the coverage of the department of education, or any other organization and to create incentives to enhance the quality of their work indicate the importance that managements consider for their human resources as one of the valuable assets (Saadatmand, 2009).

In our time, almost all works and issues of the society are carried out by organizations and that the workflow of organizations depends on individual activities and collaboration. People do things more effectively through organizations and that the ways they do things affect the quality of the organization's activities and consequently affect the way the society's works and issues are done. As one of these organizations, Department of Education is the prominent feature of our time in the way it grows and expands. The consequence of this growing is the transformation of educational system to a massive and inclusive organization. Undoubtedly, the workflow of such an organization depends on proper goal-setting and planning and intelligent organization (Saadatmand, 2009).

Job satisfaction is an issue that many people are involved in whether for those who are in search of work and want to experience the workplace for the first time or those who have been working for many years and suffer from its problems. Workplace is actually the second home of individuals. Many people spend many hours of their lives in the workplace. It is clear that the environment must generate a minimum of mental and psychological needs of people so that they can upgrade their professional knowledge and sincerely provide their job services along with earning money (Yaghoobi, 2009).

#### 1.1 Theories related to job satisfaction

**Expectancy theory of job satisfaction:** This theory states that people consider different jobs in their possession and choose the one that would most likely lead to their favorable rewards. The theory was first proposed by Victor Vroom. He presented two models: one is to predict specific choices such as the career the person will take in his job, or how hard he will try. And the other

is to predict a person's attitudes towards his job. The combination of expectancy and value determines what the person will choose (Alvani et al., 2007).

#### 1.2 Maslow's hierarchy of needs theory

This theory was proposed by Abraham Maslow in the years 1940-1950. At the beginning of the 1960s, this theory emerged as a good model of organizational behavior. Maslow classified human needs into seven categories: 1. physiological needs, 2. safety needs, 3. belonging needs, 4. respect needs, 5. aesthetic needs, 6. epistemology needs, and 7. self-actualization.

Although at first, Maslow aimed to provide a model to explain the general relationship between motivation and personality, he later turned his attention specifically to the issues of employee motivation in work organization (Robbins 2008, cited in Parsaeian et al., 2008).

#### 1.3 X theory and Y theory

This view was expressed by Douglas McGregor. X theory assumes that most people prefer to be directed, avoid responsibility, and seek security more than anything else. This philosophy is the belief that money, fringe benefits, and threatening to punishment motivate people. They suspect that for the management of unreliable, irresponsible and immature people, direct control is quite useful and necessary. Under the heavy influence of Maslow's Hierarchy of Needs, McGregor concluded that the assumptions of theory x about human nature is generally incorrect. As a result, McGregor developed theory y. This theory assumes that people are not lazy and unreliable in nature. According to this theory, people can be creative and self-rule in his work in principle, provided that he is appropriate motivated. Thus, the primary responsibility for management is to change this potentiality to actual human capability (Robbins 1, 2008, cited in Parsaeian et al., 2008).

#### 1.4 The theory of difference:

The theory was first presented by Smith et al (1997). They demonstrated that job satisfaction can be explained by the difference between job motivation and incentives provided by organization. According to the theory, if needs incenting a person to work are precisely satisfied by incentives of organizations, job satisfaction will be in higher level while if someone's needs are more than rewards received by a person for job, a difference leading to dissatisfaction will arise. If rewards are more than needs, the difference will result in positive job satisfaction (Rezaei, 2007).

Today one of the problems of organizations is organizational dissatisfaction with job among the managers and workers and their organizations as well as to cope with the stressors inside and outside the organization. In this regard, organizations should be able to increase the endurance of the personnel and to reduce the factors that cause stress so that individual and organizational productivity, and job satisfaction increases (Saadatmand, 2009).

Sources of potential stressors in a person's life can be divided into three groups according to Rolinson i.e. environmental stressors, organizational stressors and individual stressors. Environmental stressors are highly varied including economic changes, political changes, social changes, and finally technological changes.

**Organizational stressors:** Today, anyone in any place and situation has almost felt some degree of stress in the workplace and the organization and this issue is an undeniable and objective reality in the modern organization. The stress may be due to the internal or external organizational factors; however, it

is associated with effects such as loss of productivity, withdrawal from work, physical and mental exhaustion, low yield, and decreasing satisfaction etc. (Yaghoobi, 2011).

Organizational commitment looks like job satisfaction because both are involved with feeling relating to working conditions. Since organizational commitment deals specifically with the attitudes of workers, it may be directly related to variables of presence in the workplace, such as absenteeism, and labor turnover rather than job satisfaction. Organizational commitment is the employee's tendency to the organization in terms of loyalty to the organization, gaining identity with it and the rate of challenge in the organization (Yaghoobi, 2009). Although the concepts of job satisfaction and organizational commitment distinct from each other, they are completely interdependent. Research shows that there is a high positive correlation between these two factors (Baird, 2010). The direct and indirect relationship between professional commitment, job satisfaction and job stress among Taiwan's public health nurses was investigated. The results of this research indicated that job satisfaction significantly predicted turnover among nurses. Noorbakhsh (2004) investigated the relationship between organizational commitment and job satisfaction of female employees participating in Health Plan class at Shahid Chamran University. He concluded that there was a significant positive relationship between employees' job satisfaction and organizational commitment.

### 1.5 Different viewpoints about organizational commitment

Two perspectives have been proposed in organizational commitment. The first attitude which is the most common method in contact with organizational commitment is considered as a kind of dependence on the organization. According to this view, one who is strongly committed to get his identity from the organization participates in the organization and is pleased by it and enjoys membership in the organization. This practice was formulated and operationalized by Berter et al (1974). Another perspective is Baker's view (1960) which considers commitment as a behavioral matter rather than emotion or attitude. According to this attitude, people are more dependent on organization for more affiliates as benefits or seniority rather desired emotions than an organization (Izadi, 2008). According to what was said, it can be said that the capability and efficiency of Department of Education depend on the optimal use of facilities, resources and human resources. In this regard, the more the workforce is competent and efficient, the more the progress and success of organization will be. According to Philip Koebner (1996), if a development should happen in the society, this should be started from Department of Education (Mirkamali, 1999). Out of the factors causing satisfaction and achieving goals in schools is job satisfaction. Job satisfaction has a major impact on organizational behavior and teachers can have an important and positive impact on the organizational development, job performance and motivation and ultimately the commitment and performance of people in the organization (Heidary, 2010). Therefore, considering job stress and its causes and consequences is essential for any organization. Attention and study on job stress and its relationship with organizational commitment is crucial because organizational commitment is considered as the basic elements of any organization. Organizational commitment is an important job and organizational attitude which has attracted the attention of many researchers in the fields of organizational behavior and psychology, especially social psychology in recent years (Pourbabkan, 2010).

In a study entitled "investigating inter-group and intra-group conflict at workplace", in a sample of 255 employees of a factory in Japan on psychological stress and job involvement, Melhem (2004) found that inter-group and intra-group conflict increases

psychological stress in men while intra-group conflict increases psychological stress and job involvement in women.

Given the importance of the role of teachers and employees in achieving the objectives of Ministry of Education and adverse conditions prevailing in their work environment, there is a need for such study and in this study; the researcher follows a suitable answer for the following questions in addition to the study hypotheses.

1. Which dimension of organizational commitment is a stronger predictor for teachers' job stress?
2. Which dimension of organizational commitment is a stronger predictor for teachers' job satisfaction?

## 2 Materials and Methods

According to the issue and objectives of the study, this study is descriptive and correlational. The study population consisted of teachers formally employed in Dehdasht Department of Education in primary, middle and high levels in the academic year of 2014 that were totally 2200 individuals. Sampling was done using cluster random sampling technique and the number of samples was obtained as 327 cases through lottery using Morgan Table among which 167 cases and 163 ones were males and females, respectively. Data were generally analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and correlational statistics (multivariate regression analysis, Pearson correlation coefficient and analysis of variance).

### 2.1 Materials

Job Stress Scale (GJSS): this scale and its resources has been presented by Philip L. Zeiss (1992) which is consisted of 57 questions and presents information on job stress to people. In relation to the validity and reliability of job stress questionnaire, the reliability has been reported as 0.99 and 0.72, respectively using alpha and retest methods. Also, in the present study, Cronbach's alpha of the above scale was obtained as 0.85.

Job Dissatisfaction Index (JDI) was designed by Smith (Dewettinck, 2011) which contains 72 questions and five dimensions of salary, relation with colleagues, promotion, job and supervision. Due to the length of the questionnaire, a study was done to reduce the questions by Halepota (2011) through which the number of questions was reduced to 30. In this study, 30-item questionnaire of Gregson was used. In his study in 1994, Abbas Azadgale obtained the reliability of the questionnaire as 0.86, and in 1997, Mohamadian measured it as 0.72 (cited in Saadatmand, 2009). The total reliability of the questionnaire was calculated 0.75 via Cronbach's alpha coefficient in this study.

Organizational Commitment Questionnaire (OCQ): it was formulated to assess organizational commitment by Gallardo (2010) and was first prepared to be used in Persian by Hossein Shokrkon in 1993 and has 24 self-report questions. The questionnaire have been used in numerous studies. Some researchers such as Wang (2007) calculated its reliability using Cronbach's alpha coefficient for the subscales. For emotional, continuous, and normative commitment, the reliability was obtained as 0.86, 0.79, and 0.75, respectively. Also, the total reliability of organizational commitment was obtained as 0.90. The reliability of the questionnaire in this study equals .078 using Cronbach's alpha coefficient.

## 3 Findings

First hypothesis: there is a significant relationship between organizational commitment and its dimensions and job stress.

Table 1: Correlations between the dimensions of organizational commitment and job stress

Organizational commitment and its dimensions	Correlation coefficient with job stress	Level of significance
Total organizational commitment	-0.21	0.001
Emotional commitment	-0.15	0.006
Continuous commitment	-0.19	0.001
Normative commitment	-0.043	0.44

As shown in the above table, the relationship between organizational commitment and job stress equals to  $r = -0.208$  which is significant at the significant level of  $p < 0.001$ . This means that there is a significant negative relationship between organizational commitment and job stress. Also, there is a negative (inverse) and significant relationship between the

dimensions of emotional commitment and continuous commitment and job stress; however, no significant relationship is observed between normative commitment and job stress.

### 3.1 The second hypothesis: there is a significant relationship between organizational commitment and job satisfaction

Table 2: Correlation coefficient between organizational commitment and its dimension and job satisfaction

Organizational commitment and its dimensions	Correlation coefficient with job satisfaction	Level of significance
Total organizational commitment	0.51	0.0001
Emotional commitment	0.49	0.0001
Continuous commitment	0.084	0.128
Normative commitment	0.36	0.0001

According to the contents of this table, the correlation between job satisfaction and organizational commitment equals to  $r = +0.51$  which is significant at the significant level of  $p < 0.0001$ . Therefore, it is concluded that there is a positive (direct) and significant relationship between organizational commitment and job satisfaction. Also, there is a significant positive relationship between the dimensions of emotional commitment and normative commitment and job satisfaction. But there is no

significant relationship between normative commitment and job satisfaction.

### 3.2 The third hypothesis: there is a significant difference between the teachers' job stress and the level of education.

To investigate this hypothesis, one-way ANOVA was used.

Table 3: mean and SD of job stress in terms of the level of education

Level of education	Number	Mean	SD
Diploma	13	133	22.8
Associate degree	138	140	25.3
Bachelor	176	151	22

As shown in the above table, the higher degree of education increases job stress. To assess the significance of these

differences one-way ANOVA was used whose results are given in the table below.

Table 4: ANOVA table

resources of change	Total square	Degrees of freedom	Square mean	f	Level of significance
Between group	10998.3	2	5499.19	9.92	0.0001
Within group	179585.9	324	554.27		
Total	190584.2	326	-----		

This means that there is a significant difference between at least two educational groups in terms of job stress. To answer this question among which one of educational groups there is a significant difference, sheffe post-hoc test was used and its result showed that there is no a significant difference just between diploma and associate degree in terms of job stress and there is a significant difference among the rest of levels of education i.e. The level of job stress in holders diploma is significantly lower

than those with bachelor degree and job stress in holders associate degree is significantly lower than those with bachelor degree. The overall result is that holders of a bachelor's degree have the most job stress.

### 3.3 The fourth hypothesis: here is a significant difference between job satisfaction and the level of education.

Table 5: Mean and standard deviation of job satisfaction and level of education

Level of education	Number	Mean	SD
Diploma	13	113.6	11.78
Associate degree	138	102.29	17.8
Bachelor	176	96.49	16.73

As shown in the above table, job satisfaction decreases with increasing the level of education. To assess the significance of

differences between the above means, one-way analysis of variance was used.

Table 6: ANOVA table

Sources of change	Total square	Degree of freedom	Square mean	f	Level of significance
Intergroup	5318.6	2	2659.34	9.15	0.0001
Within group	94140.92	324	290.55		
Total	99459.52	326	-----		

As it is observed, the value of F is equal to 9.15 which is significant at  $p < 0.0001$ . In other words, there is a significant difference between at least one pair of the above means. There is no significant difference between the mean job satisfaction of individuals with diploma and associate degree. Also, there is a significant difference between the mean job satisfaction of

graduates and those with diploma and associate degree. This means that the job satisfaction of those with bachelor's degree is significantly less than those with diploma and associate degree.

#### 3.4 Fifth hypothesis: here is a significant difference between teachers' job stress based on gender

Table 7: Results of independent t test to compare job stress between male and female teachers

Groups	Number	Mean	SD	t	Degree of freedom	Level of significance
Female	163	142.4	23.9	2.83	325	0.005
Male	164	149.9	23.8			

LevensF = 0.903 and  $P < 0.9$

As it can be seen, LevensF is 0.903 which is not significant in  $P < 0.9$  i.e. the variance of the two groups are homogeneous (default of Independent t). The mean job stress is 142.4 and 149.9 in women and men, respectively. Given that t is equal to

2.83 and is significant at  $P < 0.005$ , it is concluded that job stress in men is significantly more than that in women.

#### 3.5 The sixth hypothesis: is a significant difference between job satisfaction and gender

Table 8: independent t test to compare the mean job satisfaction of women and men

Groups	Number	Mean	SD	t	Degree of freedom	Level of significance
Female	163	103.1	16.15	3.67	325	0.0001
Male	164	96.13	18.06			

LevensF = 0.67 and  $P < 0.411$

As it can be observed, LevensF is not significant, so the variances of the two groups are homogeneous. The mean job satisfaction has been obtained as 103.1 and 96.13 in women and men, respectively. Considering that t is equal to 3.67 and is significant at  $P < 0.0001$ , it can be concluded that job satisfaction among women is significantly more than that among men.

#### 3.6 Research questions

**The first research question: Which of the dimensions of organizational commitment is a stronger predictor of job stress among teachers?**

Table 9: Results of stepwise multiple regression analysis

Steps	Variable	R	R2	F	P	B	t	P
First step	Continued commitment	0.186	0.35	11.68	0.001	0.186	-3.41	0.001
Second step	Continued commitment	0.257	0.066	11.49	0.0001	-0.209	10.6	0.0001
	emotional commitment					-0.179	-3.86	0.0001
							3.3	0.0001

As it is observed, continuous commitment enters the equation as the strongest predictor at the first step in which multiple correlation coefficients (R) equal to 0.186 and the coefficient of determination equals to 0.35 that is continuous commitment can predict 3.5% changes in job stress and Beta value equals to 0.186. In the second step, emotional commitment enters the equation as the second variable. The two variables together have correlation coefficient equal to 0.257 with job stress which

predict 6% of changes in job stress. Because the value of F is equal to 11.49 and it is significant at the level of 0.0001, these two variables together are able to predict job stress. Normative commitment has not been entered into the equation.

**The second research question: Which of the dimensions of organizational commitment is the strongest predictor of job satisfaction among teachers?**

Table 10: stepwise multiple regression analysis

Steps	Variable	R	R2	F	P	B	t	P
First step	Emotional commitment	0.49	0.24	102.5	0.0001	0.49	10.13	0.0001
Second step	Emotional commitment	0.51	0.26	57.45	0.0001	0.51	10.6	0.0001
	Continuous commitment					0.15	3.1	0.002
Third step	Emotional commitment	0.53	0.28	41.67	0.0001	0.43	7.7	0.001
	Continuous commitment					0.16	3.3	0.001
	Normative commitment					0.15	2.8	0.006

As it can be observed, the strongest predictor of job satisfaction is emotional commitment which has been entered into the equation at the first step and its multiple-correlation coefficient is 0.49 and predicts the percentage of variance of job satisfaction. Since F is significant at  $P < 0.0001$ , this variable is able to predict job satisfaction and Beta is equal to 0.49. In the second step, continuous commitment which is the strongest predictor for job satisfaction is added to emotional commitment. These two have a correlation equal to 0.51 with job satisfaction and can predict the percentage of variances in job satisfaction i.e. they predict 2% of changes in job satisfaction. Since F is significant at the level of 0.0001, these two variables are able to predict job satisfaction. Beta r has been achieved 0.51 and 0.53 for emotional and continuous commitments, respectively. In the third and last step, normative commitment also was entered into and in the equation so that all three dimensions together have a correlation coefficient equal to 0.53 with job satisfaction and predict 28% of variances in job satisfaction i.e. normative commitment also predicts job satisfaction about 2%. Since F is

significant, these three variables are able to predict job satisfaction and the strongest predictors are emotional commitment, then continuous and normative commitment, respectively.

#### 4 Discussion and conclusion

This study aimed to investigate the relationship between organizational commitment and job satisfaction and job stress among teachers in Dehdasht in 2015. In this research, organizational commitment and its dimensions were introduced as the independent variables (predictors) and job satisfaction and job stress as dependent variables (criteria). The study consisted of six hypotheses and two research questions. First, the findings are discussed, and then the results will be evaluated.

**The first hypothesis: there is a significant relationship between organizational commitment and its dimensions and teacher's job stress.**

According to Table 1, b there is a significant negative correlation between organizational commitment and its dimensions and job stress ( $p < 0.001$  and  $r = -0.208$ ). However, there is a significant and negative relationship between the dimensions of emotional commitment and continuous commitment and job stress. But no significant difference has been observed between normative commitment and job stress. The result of this finding is consistent with the results obtained by Michae (1999) because its relationship with turnover, absenteeism, and employees' delay is reverse and negative. Therefore, the nature of a person's relationship with an organization is different in any one of these three dimensions of emotional, continuous and normative commitments. Employees with strong emotional commitment stay in the organization because they want to stay there. People having a strong continuous commitment stay because they need to be and those who have a strong normative commitment also stay because they feel they should stay. Thus, the first hypothesis was confirmed. In other words, the more the job stressors in a workplace, the more the employees' organizational commitment is reduced and along with increasing the mental stress, employees' commitment including emotional and continuous commitments, decision making, communication, responsibility, dedication, attachment to the organization, the quantity and quality of work and work mentality are decreased and cause the weakness and shortcomings.

**The second hypothesis: there is a significant relationship between job satisfaction and its dimensions and organizational commitment.**

According to Table 2, it can be seen that here is a significant positive relationship between organizational commitment and job satisfaction and also between dimensions of emotional commitment and normative commitment and job satisfaction ( $p < 0.001$  and  $r = +0.505$ ). The result of this finding is consistent with research results by Noorbakhsh (2004). Personnel job satisfaction and organizational commitment leads to high performance and their persistence in their job and profession. Since the salary would result in self-esteem, it increases a person's commitment and job satisfaction. Also, when employees are involved in decision-making, appropriate reward and punishment system will be established and improper interaction between people and discrimination in the workplace will be removed leading to job satisfaction and organizational commitment.

**The third hypothesis: there is a significant difference between teachers' job stress and the level of education.**

According to Tables 3 and 4, there is a significant difference between teachers' job stress and their level of education ( $p < 0.0001$  and  $F = 9.92$ ). In other words, the higher the level of education, the higher the job stress i and a bachelor's degree holders have the most stress. The results of this finding are consistent with results obtained in the study by Kazemi (2010). One of the reasons is that scientific knowledge and giving more importance to works among educated people result in this issue. Therefore, the third hypothesis was confirmed.

**The fourth hypothesis: there is a significant difference between teachers' job satisfaction and the level of education.**

According to Tables 5 and 6, there is a significant difference between teachers' job satisfaction and their level of education ( $p < 0.0001$  and  $F = 9.15$ ). The difference between the mean job satisfaction of bachelors and diploma and associate degree is significant i.e. the amount of job satisfaction of those with a Bachelor's degree is less than that of those with Diploma and Advanced Diploma qualification. Therefore, it can be said that the higher the degree the lower the job satisfaction. The results of these findings are not consistent with research results by

Prington (1994). There may be several reasons, but the followings are a few. The first reason may pertain to the fact that educated people have higher expectations. Employees who have more education and are paid less, they may have less production or reduce the quality of productions (work) (i.e. efforts are reduced). If high degree results in security, status and other interests, it creates job satisfaction in the person and vice versa. Thus the fourth hypothesis was confirmed. This means that there is a significant difference between the mean job satisfaction of graduates and diploma and associate degree i.e. the amount of job satisfaction of those with Bachelor's degree is less than that of Diploma and Advanced Diploma qualification. Therefore, it can be said the higher the level of education, the less the job satisfaction.

**The fifth hypothesis: there is a significant difference between teachers' job stress in terms of gender.**

According to Table 7, there is a significant difference between the teacher's job stresses in terms of gender. ( $F = 0.903$  and  $p < 0.9$ ) ( $t = 2.83$  and  $p < 0.005$ ); therefore, the fifth hypothesis was confirmed. In other words, the amount of stress in men is more than women. The results of these findings are not consistent with the results obtained by Kazemi (2010). It can be said that in studies, it is often assumed that there is a difference between men and women in terms of the experience of job stress. Financial needs in men are higher than that in woman and they should do more work for subsistence and survival or should work consecutive hours, as well as, suffer from more stress in the workplace than women because they participate in organizational politics and the struggle for power. Since stress may lead to alcoholism and narcotics, the men are at more risk than women. It seems most newly hired employees are men with high educational degrees and because of falling in a new and unfamiliar environment where there is a lot of information for learning, they feel more stress. Since men are more involved in work than women, they have less time for exercise and rest and due to lack of a regular diet; they may suffer from more stress. Therefore, the fifth hypothesis was confirmed.

**The sixth hypothesis: there is a significant difference between teachers' job satisfaction based on gender.**

According to Table 8, there is a significant difference between teachers' job satisfaction based on gender ( $P < 0.0001$  and  $T = 3.67$ ) i.e. job satisfaction in women was significantly greater than that in men. The obtained results are consistent with the results from studies by Andrvazh (2007) and Hagari (2009). There are several factors together which can create job satisfaction among people. Perhaps, the lack only one factor of all these factors can reduce a person's satisfaction or dissatisfaction with their jobs. Income; social status; possibility to job promotion; how to manage in workplace; non-discrimination and one's knowledge are the most important factors creating job satisfaction in individuals. The rate of income is one of the most serious and employment causes selecting a job for people so that in many cases, the other factors can even be ignored. Sometimes, there are people with important jobs and social status and prestige do not feel job satisfaction because of low income so that in many instances, they change their job even to lower-status job. It seems that: 1- since women is not responsible for living expenses, they usually have job satisfaction despite small salary while men are seeking more than what they receive to have complete satisfaction from their work.

2- The little share in benefiting from job opportunities in today's society makes women more satisfy with their jobs than women.

3- Since women are always trying to adapt to the situation, they do not come to compete and this spirit in women causes increasing their job satisfaction. Therefore, the fifth hypothesis was confirmed i.e. the level of job satisfaction in women was significantly greater than that in men.

## 5 Explaining the findings of the research questions:

### The first question: which dimensions of organizational commitment is the strongest predictor of job stress among teachers?

According to Table (9), continuous commitment has been detected as the most powerful predictor in the first step and has predicted 3.5% of variances of job stress. In the second step, emotional commitment has been appeared rather than normative commitment in predicting job stress and both continuous and emotional commitments have predicted 6% of variances in job stress. The results from these findings are not consistent with the results of the study by Bellou (2007). Since both continuance and emotional commitments predict 9.5% of variances in the job stress, it seems that people with continuance commitment will be sensitive to increase the costs of the organization, the volume and size of individual's investments in the organization, spent time and energy for learning and objectives which the organization have been contracted to preserve for them and protecting them have been caused stress variances and one of factors for the weakness of normative commitment is probably a feel that one has no desire to remain in the organization.

### The second question: which dimensions of organizational commitment is the strongest predictor for job satisfaction in teachers?

According to Table (10), emotional commitment has been detected as the most powerful predictor in the first step and has predicted 24% of variances of job stress. In the second step, continuance commitment is added to emotional commitment and predicts 2% of variances in the job satisfaction and in the third step, the normative commitment predicts 3% one so that all three are capable to predict 28% of variances in job satisfaction. Therefore, the strongest predictors are emotional commitment, then continuous and normative commitments, respectively. The results from these findings are not in line with the results of the study by Noorbakhsh (2004). It seems that people with high emotional commitment desire to exert more effort for organization and highly remain and this high emotional commitment to performing duties causes a feeling of responsibility, deep understanding and selflessness.

## 6 Applied suggestions

- To increase organizational commitment and job satisfaction and decrease physical and mental stressors, more and deeper awareness to the strengths and weaknesses of variables be done on teachers via diverse and short-term training courses.

- It is recommended that the authorities create a friendly and cooperative atmosphere through which they can make the ground to increase job satisfaction and organizational commitment and reduce psychological pressures on individuals so that their efficiency and effectiveness can be increased.

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### Primary Paper Section: A

### Secondary Paper Section: AE

## THE EFFECTIVENESS OF COMMUNICATION SKILLS TRAINING ON STUDENT'S HAPPINESS

<sup>a</sup>EFTEKHARSADAT SAMADI, <sup>b</sup>RAMEZAN HASSANZADE

<sup>a</sup>*Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran*

<sup>b</sup>*Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran*

Email: <sup>a</sup>Mahtab.institute@yahoo.com,

<sup>b</sup>R.hassanzade12@gmail.com

**Abstract.** The purpose of this study was to determine the effectiveness of communication skills training on female high school students' happiness. At this experimental study, first Sixty female students, were selected using multi-stage cluster sampling and then by simple random method, divided into three test and a control groups. The data were analyzed using descriptive statistics, and inferential statistics. The results showed that, in comparison to control group, communication skills training significantly induces student's happiness in test group, and among communication skills, empathy was more effective than assertiveness and listening skill ( $P < 0.05$ ). Finally, the results showed that the communication skill training had a positive effect on students' happiness.

**Keywords:** communication skills training, happiness, students

### 1 Introduction

The human always had been seeking for joy and happiness. In other words, human does all his/her activities to reach happiness and bliss. According to Aristotle, there are at least three types of happiness. At the lowest level, the ordinary people consider that, equivalent to Success, but at the upper level the desired happiness is accordant to Aristotle opinion, or the happiness caused by spirituality. There are Six fundamental human emotions: anger, fear, hate, Surprise, sadness and happiness (Dickey, 1999). Mental happiness is a person's cognitive and emotional evaluation of his/her own life. This evaluation causes emotional reactions to the accidents and also cognitive judgments about satisfaction and to accomplish tasks. So, mental happiness is a wide concept, including: experience of desired emotions, low levels of negative emotions and high life satisfaction. People's mental happiness is reflected in evaluation and perception of their life in terms of emotions, psychological and social functions. Emotional component of mental happiness contains two components: happiness and life satisfaction (Carr, 2004). Studies show that in about one hundred-year life of scientific psychology, the negative aspects of emotion were mostly considered. For every fourteen articles about negative emotions, there is only one article about positive emotions. Other researcher, with a review of the literature over the past decade, considers this proportion, seventeen to one. But in the last two decades a number of psychologists innovated a kind of positive psychology which includes subjects like: positivism in coping with the pressures of life and overcome depression and exanimate.

Overall, this researches are in line with the positivist psychology movement which started by Martin Seligman. Happiness at least has two major components: emotional and cognitive. Although happiness is not the opposite of depression but the absence of depression is a prerequisite to achieve happiness (Alipour & nourbala, 2009). Happiness is a character trait that is based on biological theory. The most comprehensive and also most operational definition of happiness was offered by winhoven. In his opinion, happiness is referred to the judgment of a person about the extent of desirability quality of life. In other words, happiness means that how much a person loves his/her life. In fact, happiness is the common goal of people and everybody tries to achieve that. And that is consist of evaluation of people of themselves and their lives (Buss, 2000). Researches conducted in relation to happiness show that treats of happy people are adaptive and helpful. These people look at things with clear vision, usually pray, attempt to solve their problems directly by themselves and ask help from others in time. On the other hand, unhappy people think and act pessimistic, are

immersed in fantasy, they blame themselves and others and avoid working for solving problems. Therefore, the mental health contains important principles that can be recognized using the effect of emotion on different aspect of human treats and its development including: Physical and mental health, training and skills development, social competencies and positive social relationships (Bridge, et al., 2002). Fortunately, by referring to the principles of positive psychology, the most valuable solution for increasing happiness can be found. Different ideas, reasons and ways of increasing happiness have suggested that these ideas should be properly investigated. Among these methods, life skills training and so that communication skills are the most important. In fact, the emphasis on human training, has a preventive role for healthy people and rescues the patients from disease. Communication skills play an important role in enhancing the health and vitality of human beings and can prevent the onset of many physical and mental diseases and eventually there will be much more happiness in our lives (Shahjafari et al., 2003). Argyle and Lu (1990) showed that part of the happiness expressing, in extroverts is for the sake of better social skills, especially assertiveness and cooperativeness. Communication skills training can help people a lot. This training includes verbal and nonverbal communication such as listening, empathy and assertiveness. Unfortunately, the people of the community are not always in the course of normal psychosocial development and for various reasons, a large number of adolescents and young people can't achieve external stimuli and find balance between stimuli's and their own internal motivations. Thus, the harmonious and comprehensive development of human as the main excellence objective, would not be realized. Meanwhile the society becomes more complex and broader social and interpersonal communication occurs, internal and environmental conflicts become more, and causes weak persons to get perplexity and confusion. Behavioral problems and mental disorders, make direct and immediate intervention necessary, so that, in this situation, the intervention is to increase the adaptability of people, raising their social and personal capacity in breeding programs that aims at promoting psychological capacity of adolescents and young people. This important and essential action takes place by life skill training (Farmahini, 2013).

Today, it has been proven that one of the characteristics of successful people in various fields, is the ability to communicate with others. On the other hand, a lot of stress that people suffer from in social and family relationships, is caused by establishing an inappropriate relationship by these people, that will affect their physical and mental health. In fact, learning effective communication methods, are important from different aspects. First, effective communication, is an essential component of prevention of mental disorders. Secondly, the main key to prevent social pathologies, is effective communication skills, especially assertiveness. Third point is that; it is of the necessary materials for the general concept of success. On the other hand, from a holistic view, today, on behalf of international community like the World Health Organization health is not defined only the absence of disease. But also health, includes a euphoric feeling in all physical, psychological, social and even spiritual dimensions. Undoubtedly, to achieve a desirable, happy situation of life, it is not enough to rely solely on holistic therapies and people must stabilize their health status using acquired tools and skills and prevent from imbalance in the body and mind, or disease. But the problem is that the modern man, in search of happiness, does not know where to take refuge in (Farmahini, 2013).

One way to create happiness, is social skills training. Social skills training, includes cognitive and behavioral set of techniques to increase happiness which was presented by Levinson and Goth Leap. The program includes training in assertiveness skills, fostering a sense of collaboration, spending leisure time, responsibility and communication skills which have been effective in increasing happiness according to many of

these researches. The results showed that the value of *t*, obtained for irrational beliefs and happiness variables was meaningful. So that the mean score of irrational beliefs is less for gifted students and their rate of happiness is higher. The results showed that there is a difference in irrational beliefs and happiness for regular and gifted students. The Taremian et al., (2006) presented that factors such as confidence, effective communication, purposefulness, decision-making and problem solving in is involved in mental health of adolescents and weaknesses in these skills will be reduced happiness and health. Researches of Hafezi et al., (2010) showed that life skills training is effective in reducing distorted behavior of delinquent teenagers. Tabesh (2008) also concluded that female high school students' life skills training has a positive effect on their compatibility. Researches of Myers (2000) showed that happiness can improve physical and mental health. Several studies also showed that happiness acts as a buffer against stress (Barati et al., 2011). Lyubomirsky, Sheldon and Schkade (2005) believe that each individual has a model for happiness or unhappiness, that makes him interpret events in such a manner that preserves his happiness. In general, they believe that happy people respond in a more adaptive and positive manner to happenings and conditions and have lower stress levels, stronger immune system and more creative than unhappy people. In life skills training programs, the skill refers to: The ability to create appropriate and effective interpersonal relationships, doing social responsibilities, make correct decisions, conflicts and struggles resolution without resorting to actions that harm self and others. Communication skills help to express ideas, beliefs, desires, needs and emotions and to ask help and guide from others when its necessary.

Listening skill or effective listening, includes the active participation in a dialogue, the activity which helps the speaker to transmit his own purpose. Clear and effective expression of desires, feelings, thoughts, is half of the communication process that is necessary for influencing and interpersonal communication. The other half is to listen and perceive others. effective communication is obtained when the recipient of a message, understands the purpose of the sender in the same way that the sender means to (Ghorbani, 2006). Empathy skill is the ability to understand others even if one not has the same situation of life. Empathy helps to individual to accept other people despite their differences and respect them. Empathy improves social relations and leads to create a supportive and accepting behavior toward other human beings. Assertiveness skill is the ability to express feelings and thoughts and ideas to be worthy so that nobody is disrespected and no one's right is spoiled (Fathy, 2015). Also the word Happiness has a psychological concept that has different definitions and dimensions. In dictionaries, happiness is synonymous with words like rejoice, joy and vitality (Moen, 2003). According to the above, the necessity of considering issue of the happiness has several reasons, one is that, happiness is contagious; which means that, happiness of a person can make others happy. Moreover, happiness makes life more pleasant (Abedi, 2006). Given the advantages of a happy life for the people, especially youth and students as future builders of society, some psychologists and researchers have tried to provide ways to increase the happiness of the people. Some of these methods could be social skills training program [Levinson and Gottlieb], cognitive therapy Beck, teaching interpersonal communication (Bus, 2000) and mood induction methods (Argyle, 2002). Due to the fact that happiness is partly learnable, to create happiness in people behavioral skills that can cause or increase the happiness can be trained to people. According to some research, it seems

that the issue of happiness has little role in the process of education and training. If this is true, it could be considered to be a serious injury in the process of education. Happiness and joy bring positive energy for the person, whether a student or teacher, both can take advantage of this energy. Therefore, in this research we intend to study the effectiveness of communication skills training on increasing the happiness of high school female students.

## 2 Method

This current research method is experimental. Research design is semi experimental "post-test - pre-test and control group" which includes four groups that all groups are measured twice. For experimental groups, before and after the intervention and simultaneously for the control group but with no training. There are three experimental groups, including those who trained listening skill, empathy skill and a group that receives assertiveness skills training and also one group, as a control group. Random sampling method was used to form groups. In this case, three groups of 15 subjects in the test group and a control group of 15 persons were defined. Each test group was exposed to its own variable test and control group continued to its previous program without any intervention. Measurement of the dependent variable for groups (control and test) was performed at the same time and under the same conditions. Research population consists of all secondary school students (first, second, third, fourth grade) of public schools in city of Sari in the academic year 90-89 which includes 5030 students. The sample size in this research is 60 students that were randomly divided into four control and experimental groups of 15 persons. Research participants were selected through multi-stage cluster sampling.

## 3 Research Tools

A. Research tools is Oxford Happiness Questionnaire. This questionnaire was prepared in 1989 by Argyle and Lu. This questionnaire has 29 parts (Alipour and Nourbala, 2000). Hills and Argyle (1998) have gained seven factors on their analysis including Life satisfaction, self-efficacy, sociability, positive recognition and self-esteem. These factors include 3/56% of the total variance. Farnham and Brewing (1990), in another research have emphasized the effect of three factors, personal development, fun and entertainment on life and health quality. The validity of the Oxford Happiness Questionnaire in Nourbala research on 25 students, Cronbach's alpha was obtained 93/0. The value of alpha was respectively obtained by Farnham and Brewing (1990), 0.90, 0.87 and 0.89 and 0.90. The reliability of the Oxford Happiness Questionnaire in Nourbala research with a very small sample size (25 students) was achieved 0.79 after three weeks. Argyle and Lu (1990) have reported the reliability 78/0 after 5 months. Noorbala (2000) research investigated the correlation between test questions and the total score of each part of the test showed a high correlation (40 to 73/0) with the total score.

B. Implementation of the independent variable of communication skills. After the implementation of happiness questionnaire at the first stage and selection of experimental and control groups, skills training was presented in the test groups during four sessions of 90 minutes (every week, one session). Then happiness questionnaire was given to both groups again.

## 4 Results

Table 2: Frequency distribution and percentage of subjects

Index/ Groups	control	Test1	Test2	Test3	Total
Frequency	15	15	15	15	60
Frequency percentage	%25	%25	%25	%25	%100

As table 2 indicates in the descriptive statistics, three student groups were considered as test groups and one for the control group. Their numbers are equal and group 1 possessed active

listening skill between two tests, group 2 possessed empathy skills and test group3 possessed assertiveness skills. The control group did not receive any training between the two tests.

Table 3: Distribution of happiness pretest and post test scores studied for four groups

Average happiness	Test1	Groups Test2	Test3	control
Pre-test	41.60	37.40	42.40	40.53
Post-test	47.60	43.60	49.40	42.66
Tests difference	6	6.20	7	2.13

Table 3 results show the average pre-test group that possessed active listening training was 60/41, and after the training was 60/47. For the group that possessed empathy skills, pre-test and after the intervention, average happiness score, were 60/43 and 60/43 respectively. And for the third group that possessed

assertiveness skills, pretest scores were respectively 40/42 and 40/49 before and after the training. The control group had gained an average score of 53/40 in pre-test and in the second phase, the average score was 66/42.

Table 4: independent t test (The effect of Listening skill training on happiness of female students)

Skill	Average		standard deviation		t	sig
	Test	control	test	control		
Listening	6	2.13	2.72	2.77	3.85	0
Empathy	6.20	2.13	2.56	2.77	4.16	0
Assertiveness	7	2.13	1.92	2.77	6.44	0
communication	7	2.13	2.15	2.77	-7Apr	0

The control and test group both include 15 students, t Critical 2.04 , $P < 0.05$  ;  $df = 58$

The results in table 4 show that the training of listening, empathy, assertiveness and communication skills has an impact on happiness students. And with comparison of averages it can

be concluded that the happiness of students that were trained listening, empathy, assertiveness and communication skill is more than the control group.

Table 5: Data analysis using stepwise regression models (step by step)

Resources	SS	df	MS	F	sig	$\alpha$
regression	6110.62	3	2036.87	25.64	0.000	May-00
residual	3255.95	41	79.41			
total	9366.57	44	-			

Given that meaningful level is equal to  $sig = 0.000/0$ , the alpha value was smaller than the considered one which is equal to  $\alpha = 0.05/0$ . So considering the degree of freedom, the regression

confirmed the effect of all three variables on Happiness. And then the share of each effective variable is presented in Table 5.

Table 6: The contribution using the stepwise regression model (step by step)

Skill	r	R	(r <sup>2</sup> )	(r <sup>2</sup> )
	step by step	each skill	coefficient	each skill
Empathy	0.45	0.45	%21	%21
Empathy + listening	0.78	0.33	%32	%10
Empathy +listening + assertiveness	0.99	0.21	%37	%5

Results table 6 shows that all three skills of listening, empathy and assertiveness is effective in students' happiness but they share is different. Regression showed that 21, 10 and 5 percent of changes of happiness are respectively related to empathy, listening and assertiveness skill training. The residual 64 percent is related to the contribution of other factors that were not studied in this. research.

## 5 Conclusion

This research aims to study the communication skills training influence on students' happiness. The results indicate the effectiveness of communication skills training on increasing of students' happiness levels. T test and regression analysis results indicate that the skills training has been positively influenced happiness components. Training listening, empathy,

assertiveness and communication skills affect students' happiness. And the comparison of the results showed that the happiness of the students who were trained Listening skill, empathy, assertiveness and communication skills was more than the control group. The results of current research consistent with Tareman et al., (2006), Hafezi et al., (2010), Tabesh (2008). So far, the direct study of the relationship between communication skills and happiness has not been made yet. Some studies, have generally evaluated life skills training effect, positive on happiness. Such as, Amiri Baramkoochi (2010) that studied the effectiveness of life skills training, on reducing depression symptoms of students. The results of data analysis, showed that the training was effective in reducing symptoms, actually, life skills training, has a positive effect on happiness (as opposed to depression). Since, communication skills is an important component of life skills, somehow this research is consistent to

the researches of this type. Poyrazli et al., (2002) Those with assertiveness are not only faced with the problem they encounter stressors, but also to conduct successful in dealing with these factors had a more positive cognitive evaluation And consequently they also experience more positive emotions and feelings (Prazly et al., 2002). anxiety, depression and personality disorders. Aryndl studies and et al (1991) and Rabstvn Temple (1991) and Nissi and Shahni yeylagh (2002) showed that the behavior of assertiveness, has a direct positive relationship with self-esteem, social self-sufficiency and independent behavior and mental health. Amalie (1992) and Ramezani (1996) also assessed the effect of assertiveness training positive in the treatment of shyness and decisiveness. As in this study was obtained and as well as the results of tables 5 and 6 presenting that 21% of the positive changes in happiness in the experimental group, were related to empathy skills training. Also 10% of the variance was related to listening skills and 5% of the positive changes related to happiness is related to assertiveness skills training. Also effects of all these three variables was confirmed on happiness. The share of empathy, listening and assertiveness skills were respectively determined in first, second and in the third grade. It seems, according to the dependent variable of happiness, what makes people in a relationship be happy, is the empathy above all factors, and after that it is active and effective listening. Although assertiveness has more effective share in a successful relationship, perhaps for cultural reasons, here it failed to brought more happiness for people than empathy. Unfortunately, there is no study found that directly or indirectly is related to these findings. However, since the share of empathy skills was more than other skills in happiness increasing. It can be assumed that in Iranian culture, at least in adolescents and among girls, empathy produce more happiness, joy and pleasure of people in interpersonal relationship, than active listening or assertiveness. In most studies, emphasis is on assertiveness and often overlooked role of empathy skills; Therefore, it seems necessary that the contribution of this factor in happiness in various related fields to be investigated. In general, it can be said that communication is one of the oldest and highest human achievements, that in addition to survival functions, it can pave the way for social activities. All of us on a daily basis, experience various communication, but most normal people, are not able to make a good and effective communication. Happiness is in fact is the magnitude of positive value that a person considers for himself (Vynhuven, 1997). This concept has two aspects, one is emotional factors that indicate emotional experience of happiness and other positive emotions. and the other one is cognitive appraisal satisfaction of various areas of life, which indicates happiness and mental health (Andrews & McConnell, 1980). In fact, happy people are mostly associated with positive emotional events, by raising their skills, instead of negative events (Carr, 2004). Generally, humans evolve in such a way that some situations make them happy and others, to bring the experience of failure. Individual differences, Happiness, have been associated with personality differences difference that can be caused by genetic factors (Bass, 2000). For this reason, Eysenck considers the biological basis for Among the limitations of this study (Alipour & noubala, 2009), environmental problems and deficiencies related of education system can be mentioned that provided no specific time and place for educational-consulting activities. It is also recommended that similar studies be conducted on larger groups, and a comparison between boys and different ages also be performed to generalize results to the whole community. Considering the great share of empathy in happiness according to results of this study, it is necessary to investigate this issue in different sex, age, and other personal and social differences. In addition, it has a greater effect in trainings. And even its role in other components of positive psychology such as mental health, self-esteem, etc. should be considered Given the importance of happiness on health of individuals and society and its effects on different individual and social functions, in research projects, rejuvenating process of academic texts should be investigated for different educational levels.

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**Primary Paper Section: A**

**Secondary Paper Section: AD**

## THE INVESTIGATION OF HUMAN RESOURCES MEASURES WITH HIGH PERFORMANCE ON CREATIVE BEHAVIOR IN SERVING WITH MEDIATING ROLE OF ORGANIZATIONAL COMMITMENT (CASE STUDY: DANA INSURANCE OF TEHRAN CITY)

<sup>a</sup>ALI ALIKHANI, <sup>b</sup>FATEMEH KARAMI SARJOOYEE

<sup>a</sup>Assistant Professor, Faculty of Management and Social Sciences, Islamic Azad University North Tehran Branch, Tehran, Iran

<sup>b</sup>MA of Business Management, Faculty of Management and Social Sciences, Islamic Azad University North Tehran Branch, Tehran, Iran

Email: <sup>a</sup>dralikhani52@gmail.com

<sup>b</sup>hastiikaramii@gmail.com

**Abstract.** The main goal of this study was to investigate the relationship between human resource measures with high performance on creative behavior in serving based on marketing management. The study population includes all Dana insurance managers in Tehran. After collecting data and information, a questionnaire was prepared and then using descriptive statistics, the status of obtained data was described and Cronbach's alpha was used to the reliability and to answer five research hypotheses, parametric inference statistical methods. In the meantime, with the help of confirmatory factor analysis, structural equation modeling, using partial least square, and Lisrel software the data analyzed. The results show that human resource measures with high-performance and organizational commitment, innovative behavior has an impact on service delivery.

**Keywords** human resource practices (measures) with high-performance, organizational commitment, innovative (creative) behavior in service

### 1. Introduction

In today's world, communication, exchange of goods, information and technology has increasingly expanded and progressed. Today the innovative services behavior in current technological space is required for the organization and plays an important role and most organizations are looking to create new ideas in order to use knowledge to offer new products and innovative and services for customers and in this way create the infrastructure necessary for business practice, innovation and learning. Increased importance of innovation caused by globalization of markets and competitive pressure to companies to be always looking for innovation. These facts will stimulate companies as a requirement, increase their focus on innovation. The importance of the enterprise and organizations development hasn't been away from governments' attention. State officials more and more provide areas for innovation activities in these businesses because they form a large percentage of the economy and have an important role to play in promoting innovation. For this purpose, in this chapter an overview of the research has been described. To achieve this goal, after the statement of the problem and the importance of research, objectives, questions, and hypotheses are expressed. Then the theoretical framework, conceptual and analytical models, conceptual and operational definition of variables will be examined respectively.

### 2. Literature

Creative behavior in service, as behavior that brings change, is associated with a change in career. This kind of behavior are expression and creation of new things or different and is defined by virtue of orientation for the change, because these behaviors are associated by creating new products, services, idea, procedures and processes.

The creative (innovative) behavior in service (serving) includes exploring opportunities and generate new ideas, but can also include behaviors to apply change, applying new knowledge or improvements of processes to enhance personal performance or job. Innovation in processes or new products is a useful behavior which is developed and applied in human resources so that solve organization's problems and improve its situation. The share of human resources in the development of organizational innovations refers to innovative business practices which include all activities related to the development of innovation.

Conceptually, this structure is based on psychology research of organizational services of innovative behavior. Studies show innovative business practices is influenced by individual and situational factors such as perception from influence or superior support (Leonard, 2010).

Now, at the beginning of the third millennium, the world is entering (experiencing) a new era. Today's world is the world of rapid and extensive developments in all aspects. The emergence of developments in the global trade also is no exception. Each of the actors of international situation is seeking improvement and establishment of their capacity and status in the international trade. So, the necessity of survival in today's competitive economy and changing environment is smarter, harder and faster performance than in the past. In the field of human resources we find that innovative organizations encourage actively the training and development of its members as they can be updated. They provide job security for their employees in an excellent level to reduce the fear of deportation because of a mistake and make people assertive to be changeable. When a new thinking evolves, vanguards of change actively and with enthusiasm give ascendancy to thought and support it and will overcome the problems and ensure that the innovation will be implemented.

In spite of the trained younger generation and expansion of higher education, due to lack of coordination between macroeconomic policies with policies on research and innovation and the vacuum of demand-driven innovation, this important hasn't been realized. Therefore, it is necessary to adopt appropriate macroeconomic policies in order to create development of innovative activities demand and creation of change and profitability (Rezai, 2014).

Today, the major industrial and advanced countries of world, in the light of creative behavior in different fields to serve not only to properly and optimally benefit from its resources and capital, but also using it move technical and production wheels for the development of the country and in this movement achieve innovations and creativeness that contributes accelerating the growth and development of the country.

In this regard, the conducted studies include a wide array of variables.

Taleghani et al., (2012), studied the relationship between knowledge management and organizational innovation in an insurance company. A total of 180 experts in insurance studied companies, 86 people were selected using simple randomly as sample. Information on knowledge management variable based on a "Whig" model which has also been by "Newman" and "Sedra and Gable" and information related the variable of organizational innovation was obtained based on "Moghimi" and "" and "Shah Hosseini and Kavooosi" model. Spearman's rank correlation coefficient results showed that the indicators of knowledge creation, knowledge preservation, knowledge transfer and application of knowledge have significant relationship with organizational innovation. The highest correlation coefficient for the prediction of organizational innovation was related to application of knowledge variable by a 0.878 coefficient and the lowest correlation coefficient was related to variable of knowledge preservation by 0.656 coefficient. To achieve organizational innovation, administrators need to integrate knowledge capital in different sectors and having knowledge of internal and external forces. On the other hand, knowledge should be distributed throughout the organization, because a better distribution of knowledge will increase the probability of organizational innovation.

Moaffagh (2014) stated that the employees' innovation or creativity is considered as major outcomes in adapting of

organizations to the environmental conditions and the use of opportunities. Despite the importance of this variable in identifying this structure in the organizational context and its assessment, few researches have been done to date. The results of this study can be effective for researchers and employers to optimized understanding of the nature of organizational innovation and evaluation of these structures.

Luthans (2008) in a research argues that knowledge acquisition and integration of existing knowledge with new knowledge lead to innovation in products. One of the ways to promote continuous innovation, is the ability of companies in reshaping organizational knowledge and of other roles of knowledge management in the innovation process, facilitating cooperation between the duty borders of organization, helping to build capacity, capability and reduced complexity in the innovation process can be referred.

**3 Conceptual model of research**

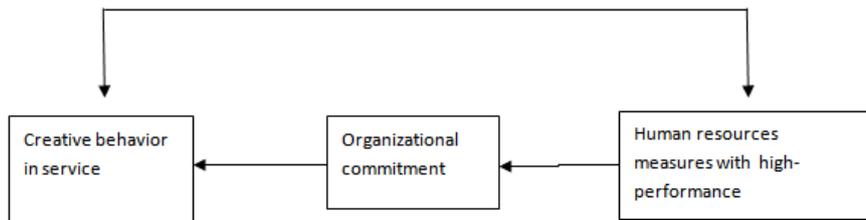


Figure 1: Derived from the research model (Dhar, 2015)

After break down factors influencing dependent and independent variables using questionnaires and adapt it to the conditions of present society, we examined the relationship between creative behavior in serving (service), organizational commitment and human resource practices (measures) with high performance. Independent variable is human resource practices (measures) with high-performance and the mediator variable is organizational commitment, which its effect on the dependent variable –creative behavior in serving (service) is measured.

**4. Methods**

The following hypothesis are considered for this research:

- Human resources practices (measures) with high-performance have a significant impact on organizational commitment.
- Organizational commitment has a significant impact on innovative behavior in service delivery.
- Human resources practices (measures) with high-performance have a significant impact on creative behavior in service delivery.

Regarding this research is to develop practical knowledge, in terms of purpose is an applied and in terms of data collection is a descriptive one. Also, because this study aimed to investigate

Shelley (2009) in a study entitled transformational (evolutionary) leadership, organizational creativity and innovation states transformational (evolutionary) leadership has significant impacts on creativity at the individual organizational level. At the individual level, hierarchical linear modeling results show a positive relationship between transformational (evolutionary) leadership and employees’ creativity. In addition, transformational (evolutionary) leadership through psychological empowerment affects on employees’ creativity. At the organizational level, regression analysis results show that transformational (evolutionary) leadership has a positive relationship with organizational innovation which is measured by market-oriented criteria (which specifically has been designed for developing countries and growing industries).

and identify factors influencing innovative behavior in service delivery, is a correlational one, and considering this study concerns the distribution of statistical characteristics of the population is a survey. Additionally, because the data are collected from a population at defined point of time also this is a cross-sectional study.

**5. Results**

In this study, to calculate the reliability Cronbach’s alpha coefficient method was used. In this method, firstly the scores variance of each item of questionnaire and the total variance are calculated and then alpha coefficient is calculated using the following formula:

$$\alpha = \frac{n}{n-1} \left(1 - \frac{\sum si^2}{s^2}\right) \tag{1}$$

n= the number of questions Cronbach’s,  $\alpha$  =Alpha coefficient, si = item standard deviation, s = standard deviation of total questionnaire

In this study, to calculate Cronbach’s alpha coefficient SPSS 20 software was used. For this, Cronbach’s alpha was obtained that its rate is more than 0.7 and is at an acceptable level indicating the research questionnaire has an enough reliability and the results can be trusted so that if a questionnaire is used to maintain the results achieved again.

Table 1: Results of descriptive statistics

Percentage	Frequency		
60.0	54	Female	<b>Sex</b>
40.0	36	Male	
6.3	6	Less than 30 years	<b>Age</b>
35.8	32	Between 30 and 40	
56.3	51	Between 40 and 50	
1.8	2	More than 50	
100.0	90	<b>Total</b>	
15.0	14	Diploma	<b>Education</b>
9.5	9	Associate	
53.5	48	Bachelor	

17.8	16	Master	<b>Marriage status</b>
4.3	4	PhD	
100.0	90	Total	
47.0	42	Married	
53.0	48	Single (unmarried)	
100.0	90	Total	

## 6. Testing of hypotheses

### 6.1 Descriptive study of research variables

The description of variables is important because the results of hypotheses are extracted based on data and indicators of these variables. The data are spatial scales. To describe the variables central and dispersion indicators were used that continues to be discussed.

The description of variables: In this study, 90 subjects were selected as sample and data has been gathered by questionnaire. Given the choice of 5-point Likert scale for questions constituent of questionnaire, the values of responders should be examined to be cleared the mean of their responses are less than 3 showing that the studied population in that index has been evaluated in an unfavorable situation. Because the mean value of responses have been more than 3. The statistical indices (indicators) of variables are shown in table 4-2.

Table 2: Measures of central tendency and dispersion variables

kurtosis	Skewness	SD	Median	Mean	sample size	Variable
-0.651	-0.217	1.0622	3	3.089	90	<b>Human resource practices with high-performance</b>
-0.665	-0.121	1.0252	3.2	3.3	90	<b>Organizational Commitment</b>
-0.412	-0.506	0.8267	3.8	3.7	90	<b>creative behavior in service delivery</b>

### 6.2 Inferential analysis of findings

To examine the normalization of factors of the model KS test was used and in all tests, statistical hypothesis is as follows.

H0: data are normal (data come from a normal population)

H1: data aren't normal (the data are not from a normal population)

Table 3: Kolmogorov-Smirnov test results

Normality result	Sig	statistic z	Variables
Normal	0.16	0.12	Human resource practices with high-performance
Normal	0.13	0.14	Organizational Commitment
Normal	0.17	0.10	creative behavior in service delivery

### 6.3 The convergent validity, mix reliability and goodness of fit index

A kind of relations of hidden variables in the structural equation model is based on correlation (harmony). The correlation is the relationship between two variables in a model, but non-directional and nature of this relationship is assessed by correlation analysis. Table 4.5 shows the Pearson correlation coefficients for the relationship between hidden variables for two by two. On the main diagonal of this matrix is 1 number showing each variable has a complete correlation of with itself. All coefficients are significant at the 95% confidence level (the value of significance level is less than 5%). Whatever the value

of the correlation coefficient is more, the relationship between two variables is greater and more powerful. Table 4-5 in addition to correlation coefficients concerns divergent validity. The square root of the mean of explained variance from all correlation coefficients of other variables is the necessity of divergent validity approval. For example, the square root of the mean of explained variance for human resources with high-performance variable is 92.3% which is more than the correlation of this variable with other variables. As the table shows the square root of the mean explained variance, for all the variables, is more than correlation of that variable with other variables.

Table 4: Indicators of reliability, validity and model goodness of fit

AVE	$\sqrt{AVE}$	(3)	(2)	(1)	Hidden variables
0.923	0.852			1	Human resource practices with high-performance
0.926	0.858		1	0.521	Organizational Commitment
0.932	0.868	1	0.269	0.439	creative behavior in service delivery

A kind of relations of hidden variables in the structural equation model is based on correlation (harmony). The correlation is the relationship between two variables in a model, but non-directional and nature of this relationship is assessed by correlation analysis. Table 5-4 shows the Pearson correlation coefficients for the relationship between hidden variables two by two. On the main diagonal of this matrix is 1 number showing each variable has a complete correlation of with itself. All coefficients are significant at the 95% confidence level (the

value of significance level is less than 5%). Whatever the value of the correlation coefficient is more, the relationship between two variables is greater and more powerful. Table 4-5 in addition to correlation coefficients concerns divergent validity. The square root of the mean of explained variance from all correlation coefficients of other variables is the necessity of divergent validity approval. For example, the square root of the mean of explained variance for human resources with high-performance variable is 92.3% which is more than the

correlation of this variable with other variables. As the table shows the square root of the mean explained variance, for all the

variables, is more than correlation of that variable with other variables.

Table 5: Goodness of fit indicators of model

Allowed Limit	Estimated	Index name
Less than 3	1.018	Chi-square on the degrees of freedom
More than 0.8	0.88	Goodness of fit index (GFI)
More than 0.8	0.84	Adjusted Goodness of Fit index (AGFI)
Less than 0.1	0.014	The Root Mean Square Error of Approximation (RMSEA)
More than 0.9	1	Comparative fit index (CFI)
More than 0.9	0.96	Normalized fitness index (NFI)
More than 0.9	0.99	Non-normalized fitness index (NNFI)
More than 0.9	1	Increased fitness index (IFI)

## 7. Conclusion

Table 6: Path coefficient, t-statistics and hypotheses result

Impact path	Hypothesis status	R <sup>2</sup>	T	Beta	hypotheses
+	confirmed	0.31	5.06	0.56	Human resource practices with high-performance ← <b>Organizational commitment</b>
+	confirmed	0.58	3.94	0.51	Human resource practices with high-performance ← <b>creative behavior</b>
+	confirmed		5.26	0.63	<b>Organizational commitment</b> ← <b>creative behavior in service delivery</b>

$|t| > 1.96$  Significant at  $P < 0.05$ ,  $|t| > 2.58$  Significant at  $P < 0.01$

The obtained results of the structural equation with respect to the amount of t-statistic is outside the critical interval (t value is greater than 1.96) and beta coefficient is a positive value, so with 0.95 probability the researcher claims that a human resource practices with high-performance has significant and positive effect on organizational commitment is confirmed. About hypothesis 2, the obtained results of structural equation show that given this amount of t-statistic is outside the critical interval (t value is greater than 1.96) and beta coefficient is a positive value, so with the probability of 0.95 researcher's claim that " human resource practices with high-performance has significant and positive effect on innovative (creative) behavior is confirmed and about hypothesis 3, the obtained results of the structural equation with respect to the amount of t-statistic is outside the critical interval (t value is greater than 1.96) and beta coefficient is a positive value, so with 0.95 probability the researcher claims that a human resource practices with high-performance has significant and positive effect on creative (innovative) behavior in service delivery is confirmed.

### 7.1 The researcher's proposals to studied organization

Considering the results of this study, to improve the effectiveness of human resources practices (measures) with high performance on creative (innovative) behavior in service delivery with mediating role of organizational commitment, seven suggestions can be noted as follows:

- 1) The use of reward and punishment system for employees who are provided feedback for their positive and negative works leading to their commitment to the organization.
- 2) The use of experts, in order to attract manpower suitable with position
- 3) Use of different marketing proper wit structure of each country, such as electronic, viral, integrative marketing in order to make creativity in service delivery to customers.
- 4) Providing gift to customers after sales thus customer always remembers who has given this gift to her/his and her/his friends and acquaintances will see the name and number and communication address and it is a kind of innovation and creativity.
- 5) Commitment and full obligation about assumed responsibilities of organization for customers to attract trust in the customers. The customer brings customer.
- 6) Using human resources management the organization hierarchy to be respected properly in order to the individuals do their responsibilities according to their

abilities and eventually everyone will be able to offer innovative behavior in his/her own place.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## DEFERRED PROSECUTION: AN AGREEMENT MANIFESTATION OF CRIMINAL PROSECUTION

<sup>a</sup>HASSAN SHAH MALAKPOUR, <sup>b</sup>ROHOLLAH KHEIRANDISH

<sup>a</sup> Assistant Professor, Faculty of Law, University of Guilan

<sup>b</sup> MA Student, Criminal Law and Criminology

Email: <sup>a</sup>malakpour.h.sh@gmail.com,

<sup>b</sup>roohola\_kheirandish@yahoo.com

Abstract. Criminal justice always trying responds to crime via one-sided approach. Today the approach due to legal reasons, criminological, and management are faced with fundamental changes. Agreement of prosecution is the main changes that the will of the parties to criminal case recognized. Delayed prosecution of a criminal case that, for the first time in the code of criminal procedure act of 2013 was anticipated, among the methods of this strategy in the pre-proceedings that the judicial authority after an agreement whereby the accused and the victim, special conditions can be qualified as criminal prosecution for a certain time delayed. In this paper, after defining the concept of criminal prosecution agreed to approach the legislator in the Code of Criminal Procedure concerning the postponement pursue.

Key words: deferred prosecution, agreement, offenders, judicial officials

### 1. Introduction

Gradually, under the influence of multiple developments in the field of criminal policy and especially because of the ineffectiveness of traditional criminal justice model in reducing the rate of delinquency new forms of criminal justice model have emerged. Restorative agreement and justice are the most obvious examples of this which in the light of the criminal justice system, out of the matter/command and soon had regressed and to accept flexibility in the field of criminal justice has gone. This attitude by accepting "criminal tolerance" to point out that crime is a social human phenomenon and thus should be considered when answering this feature. Paving the way for intervention offender and victim as the key actor in the process of criminal justice decision-making process is the most significant of these aspects in light of this determination and opinion of offender and the victim in different decision-making of the criminal justice recognized.

One of the most obvious innovation in the Code of Criminal Procedure Act of 2013 is privatization deal or prosecution of criminal case and the withdrawal repressive aspects of criminal networks is made to delinquent dynamic role in the criminal process. In other words, the aim of this strategy is the decision-making process of devolution of power to the offender, which can be approached most prominent symbol of civil rights and criminal law. Thus, criminal law, civil rights by copying the teachings of toys criminal and judicial authorities in the process of equalization will pursue criminal case has provided. Sometimes referred to withdrawal strategy to pursue criminal case and reduce the type and amount of charges and answer leads; so that the judicial authorities based on legal options to determine the fate of the offender's criminal case shall persist. Therefore, the strategy of how to implement justice in the particular circumstances of the offense and offenders transferred to the judicial authorities. The strategy is a way of pursuing criminal case postponed and the judicial authorities may be expedient in the light of the survey, once eligible and agreed with the offender and victim satisfaction adopt. This method makes the process stalled criminal court stage and offenders will be relieved of punishment. Iran had no history of such practices in the context of criminal policy and for the first time in the Code of Criminal Procedure Act of 2013 is anticipated.

In this section, before the institutional review deferred prosecution agreement as a manifestation of the strategy of pursuing criminal case investigate the nature and principles of agreement adaptive approach. Hence the legal nature of the

strategy is clear and we will then examine the foundations of this strategy.

Agreement deferred prosecution in the criminal case is very similar to the contract, because it no judicial determination, the victim and offenders gives the approach agreement aspect. Hence, the question: what is the legal nature of the agreement between the parties? Agreement criminal case pursued is a strategy which in the light of judicial and pre-trial offenders, the access to proper ways to compromise/reconciliation talks with the criminal. Accordingly, the strategy legally and among the contracts is as "signing of peace".

So agreement or private prosecutions in criminal proceedings with regard to the rules governing the contracts discussed (Niazpour, 2011).

In fact, the terms of the agreement the prosecution of a criminal case is approach that in light of judicial authority and offenders about how to determine the fate of the criminal case decision if offenders and indifference to its commitments, the strategy of the (judicial) cannot be peace as contract required him to perform his obligation; but just could again pursue the criminal case and the execution of penal sanction resume twice. Thus, the above-mentioned strategy has contractual nature, in the legal sense, not only because of reconciliation between parties to criminal (judicial, victims and offenders) is somewhat similar to marriage peace. Therefore, the agreement pursuit of strategic compromise circuit that causes withdrawal traditional methods provide a response to criminal behavior and a new approach, namely through the recognition of the will of offenders criminal justice and victim in deciding how to respond to the penal offense attention (Ibid., P. 25). For example, in a manner delayed criminal case to ignore the commitment by the criminal prosecution of the withdrawal method and planned implementation of the first call. According to Article 82 of the Criminal Procedure Code "... In this case, the judicial authorities charged with observing the provisions of Article (81) of this Act subject is required to run some commands. In case of non-implementation of commitments agreed by the accused without reasonable excuse at the request of the plaintiff or the defendant, the suspension canceled and continues the chase (Khaleghi, 2014, p. 82).

### 2 Foundations of prosecution agreement

Prosecution agreement or privatization strategy is not based on a different concept for thinking. The overall concept arose from philosophical thoughts, legal and social. Each of the intellectual foundations of the strategy, in forming an opinion of the legal systems of punishment and criminal prosecution are essential. The identification and explanation of these principles, the adoption of this approach will facilitate and followed by the main function of privatization pursued and fulfilled.

#### 2.1 Rehabilitation and Reform offenders

The consensus strategy of pursuing criminal case, see "Clinical and Therapeutic prosecutions" in which prosecutors accused thoughtful character dossiers and the ability to socialization and considering the interests of society. It trying corrects the condition and treatment of accused and also provides his return to society (Jafari & Norpour, 2015). Reforming offenders from the criminal justice system is the most fundamental goals and the criminal always returns policy makers to raise new criminal justice strategies and methods of reform - health.

In this way, the criminal policy decision-makers with a change in the nature and mission of the criminal process and seek to strengthen the sanctions regime corrective function - therapy criminal justice system have emerged (Bolek, 2005). Filing a

character in the criminal process, accepting the principle of individual responses, including mechanisms are functional changes and the clinical nature of the criminal justice system are taken into consideration (NajafiTavana, 2009).

Agreement of the prosecution, with the recognition of the will of the offender and his place in the criminal process seeks to promote the efficient functioning of the criminal justice system in the context rehabilitation of criminals. The strategy focuses on the participation of offenders in the criminal justice decision-making process. On the one hand a number of perpetrators of the criminal process to be taken quickly and on the other hand, the presence in the realm of criminal justice at least be subject to the answer that they pretty much keep harmful consequences once sanctions depriving freedom. The view out the negative effects of criminal prosecution for such labeling proposed the criminal military response against criminal behavior must be based on a policy shift. Should make every effort possible to spend specific segments of the offender in the criminal proceedings be conducted in different ways official channels.

The road they have contact with most of the formal elements of the system to round picks and in this way, reduce the likelihood of their infamous (Javan & Norpour, 2012)

## 2.2 Abbreviations of the criminal proceedings

Criminal justice institutions through proper investigation into criminal cases without unnecessary delay play an important role in preventing the escalation of crime and victimization and repeat. In addition, one of the important conditions for the enjoyment of the right to a fair trial, investigate the claims, sentencing and execution "as soon as possible". Hence, investigation of criminal cases not only clarify without delay the situation of the offender and the victim in reasonable time provides, but according to the usual criminal justice system, the field of health reform measures for offenders and also applying appropriate measures to protect the victims will be provided. If such actions are carried out properly and at the right time, it will play an important role in reducing the likelihood of repeated offenders and crime victims (Ahmadi, 2010). Such as the deferral of the prosecution that led to the temporary closure of the case are obvious examples are the abbreviation of criminal justice. It is obvious that such a solution in addition to accelerating the maturity, the goals of others such as corrections and crime charged is missing labels; during the deferral of prosecution as the accused controls the behavior and their actions as much as possible and try not to commit crimes. By achieving these objectives, efficiency and effectiveness of criminal justice are guaranteed. It is also one of the features brief orientations. Social reaction criminology thoughts and abbreviations regard to the application of the criminal justice system has not been immune to being productive. (Shamloo & Abdullahi, 2015) So privatization strategy of pursuing a criminal case, the most obvious solution is the quick response to crime by targeting accelerates criminal proceedings seeks to increase the efficiency of the criminal justice system in this area, which is immediately visible in the light of future criminal proceedings.

## 2.3 Identity of the offender

The identity of the offender is one of the fundamental principles of criminal pursuit consensus-oriented strategy. Code of Criminal Procedure and the general criminal law principle is an approach has been trying to respond to offenders. This approach was considered in the light of social norms delinquency phenomenon and hence criminals because ignoring these norms and harm to victims and the community deserve tolerance are allowed. According to this approach, the government through the criminal justice system and presumably to protect the values protected by the criminal answers. This approach has the unilateral aspect of the criminal justice system and criminal justice practitioners enables after taking offense to punish the guilty; for offenders in the criminal process and particularly dynamic role in the sentencing phase of reprisals (Najafi, 2009). The privatization approach pursued criminal case, as a new

strategy for withdrawal vertical approach to criminal justice, enter ranges in terms of criminal justice legislation has thereby become the imperative of having a break and fields of intervention and offenders in the criminal justice decision-making process will be provided. The strategy, to provide appropriate opportunities for alleged involvement in the process of determining sanctions unlike vertical approach as to his identity and has granted more active role than in the past. Thus, the defendants in at least some of the possible mechanisms of approach regarding the determination of criminal prosecution are actions. They agree that such a strategy in a number of instances of such conditions is essential selection and implementation of the strategy (Niazpour, 2011).

## 2.4 Reducing criminal enforcement costs and prolongation of proceedings

Save time and costs imposed on the judiciary, one of the fundamentals justifies privatization and compromise the criminal case is pursued. Official privatization strategy by diverting criminal proceedings, reduce the congestion of cases at different levels of the criminal justice system resulting in significant savings in time and costs of the judiciary. To conduct a full investigation, time, location and a large force is necessary. The complexities of the justice system sometimes causes serious problems are encountered (Mousavi, 2008). On the other hand, prolongation of procedure may lapse crime and it unpunished, leave, or whether to delay the execution of punishment enough that benefit destroy it, if treatise on crime and punishment, notes, "The rapid punishment and immediately run chase crime would be fairer and more useful. Would be more fair to blame because of the terrible punishments in vain doubt and imagination and a sense of his own weakness and uncertainty that intensified it, will be removed. Would be fairer because their criminal deprivation of liberty if necessary not appropriate, not right before sentence is imposed (Beccaria, translation: Mohammad Ali Ardabili, 2015). But the punishment after a long time, Asexual is a juvenile. The society also obliterated the memory of such punishment, benefit from no criminal purposes "As soon as the eruption occurs, spicy forget" (Norbaha, 2007). Thus, given that the privatization strategy criminal proceedings outside of the mainstream and responding to crime with the participation of the victim, criminal and judicial authorities will do, while reducing costs to the criminal justice system are dealt with quickly and without prolongation of the proceedings.

## B) Iran's criminal policy approach in field of criminal case deferred prosecution

Deferred prosecution agreement is the criminal case prosecution and one of the most important effects and then prosecutor whereby and after obtaining special conditions may prosecute criminal case to be suspended for a certain time. The method for this prosecution is the latest example of an agreement and selection and its implementation depends on obtaining a series of conditions, including agreement between official and the victim's and victim's consent. There was not implemented as agreed between the three actors to lead the way.

### 1. Deferred prosecution

Deferred prosecution including methods by which the prosecuting criminal case is delayed for a while. The legislator has not provided a definition of the institution. According to relevant laws in defining the institution can be said: Deferred prosecution agreement with the judicial institution whereby the accused and the victim or private claims, to compensate for damages to the injured party, criminal prosecution's case for a certain time delay. As mentioned in the definition of the institution of the institution to defer prosecution of the victim, criminal and judicial officials privately and outside the formal process of acting on hold to chase them (Khaleghi, 2014).

## 2. History of the deferred prosecution

The deferral of prosecution in the criminal justice system of our country was not identified as explicit. But actually puts our country in the penal system of some petty crimes that aspect of their private and their general aspect is more important than came into force and a number of judges by giving notice to the accused to satisfy the complainant or the victim in the criminal case prosecution to delay action. Tehran Penal Court Branch 230, for example, in the case Classifieds 81/1635/230 charged with breach of trust with the request to postpone the pursuit of criminal case the complainant has agreed to take over. Following this decision have committed to draw the complainant's consent. According to the court verdict passed on the fate of No. 984 due to the effect of such crimes decided (Niazpour, 2011) so although unofficially criminal courts of this institution used but this method has postponed the adoption of the Code of Criminal Procedure adopted in 2013 had not been incorporated into our penal system. There is an opportunity as a chance to prove goodwill that was somewhat similar to the deferral of prosecution. According to Article 6 of the law "In all the cases mentioned in the above case exporter check suspend the prosecution prove its goodwill.

## 3. Terms of issuance of the deferred prosecution

According to Article 82 of the Code of Criminal Procedure for the issue of postponement of prosecution there are some essential conditions and some of these conditions are related to crime and other related parties which are described below to check it.

### 3.1 Sentenced for crime

According to Article 82 of postponement of the issuance of mandatory criminal prosecution only in grade six, seven and eight are possible. So postponed prosecution in offenses with punishment, too, retribution (life and limb) and Diego as well as crime is not possible prison sentence of one to five. The territory is limited deferral of prosecution as below. First, it shows the beginning of Article 82 issue of postponement is not possible and judicial authorities are obliged to prosecute offenders. (Haji Tabar Firouzjaee, 2016)

Second only crime was sentenced grade six, seven and eight of postponement of prosecution. Sentenced for crimes committed crimes which require punishment and the sentence handed accordance with article 18 of the Penal Code which is punishable by as much subject to retaliation, law in cases of unlawful acts or violation of government regulations determine and apply. Penal Code and sentenced to eight degrees is divided among the eight grade, deferred prosecution only on the sentence handed grade six, seven and eight are possible.

### 3.2 Suspended of crime

In addition to crimes that must be punished crime, the legislator has written in this regard is another condition and it is that crime is suspended. In other words, crime is one of the crimes sentenced the possible imposition of a penalty of suspension of execution for it. The legislator of bringing indicating "suspended the crime" that some crimes sentence in Article 47 of the Penal Code has been entered withdraw from the territory of postponement of prosecution not that there are all conditions for the issue of postponement of prosecution suspension is necessary (Aghae Janet Makan, 2014). So the issue of postponement in prison for crimes even if they grade six to eight is possible:

A) Crime against internal and external security of the country, sabotage of water, electricity, gas, oil and telecommunications;

B) Organized crime, armed robbery or robbery to assault, kidnapping and acid;

C) Power and interfere with a knife or any other weapon, crimes against public morals, or the formation of centers of corruption and prostitution;

D) Trafficking of narcotics or psychotropic substances, alcohol and weapons and human trafficking;

E) Punishment instead of death, intentional murder and waging war against God and corruption on earth;

C) Economic crimes, the crime issue more than one hundred million (1000000000) riyals.

However, Article 82 issue of postponement of prosecution for all crimes was sentenced absolute degree is six to eight are possible but in addition to crimes that have been exceptions in Article 47 of the Penal Code Clause 2, Article 115 of the Act for the issuance of postponement should also bear in mind. According to the judicial authority cannot comment on authoritative legal sanctions of suspension issue. So the issue of postponement of prosecution of crimes with a degree of discretionary non-authoritative six to eight degree is possible.

### 3.3 Agreement judicial authority and the parties

One important feature of the deferred prosecution agreement is this institution. According to Article 82 of the Code of Criminal Procedure on deferred prosecution deal is subject to the will. It was therefore agreed to issue a "judicial authority". "The defendant" and "victim" condition and if one of these three actors is opposed by issuing criminal case will not be such an issue. This tripartite agreement shows that the issuance of a task is not for the prosecution and the prosecution may result even if consensual, the issuance of the refusal and the parties also has the right to challenge his decision. On the other hand if the judicial authority and the victim or his deputy are willing to issue such villages but the victim does not want to do is to file a criminal complaint they cannot do any of the victims were forced to accept the offer (Niazpour, 2011). In general issue of postponement of prosecution of the accused is subject to question and as long as he did not make such a judicial authority does not have the right to issue such an appointment. Criminal case has been postpones restorative nature and the grounds for compensation and the needs of the victim. It seems that when the case will issue in addition to being sentenced for crimes that crimes should be suspended from grade six, seven and eight are eligible for crimes and it is there that the victim or private claims otherwise there will be no possibility of issuing. In other words, if the crime of victimless crimes of postponement is not subject chase because in this type of crime (such as the veil, driving without a license, etc.), the victim has suffered direct damage. The purpose of the crimes is victimless crimes, which caused no damage caused to individuals cannot be fixed (Rahami, 2010)

### 3.4 Obtaining appropriate supply

If all conditions are met the injured official to serve the interests of the mass is required before the issue of postponement of providing appropriate prosecution of the accused under Article 217 of the Criminal Procedure Code obtain. Providing tailored to suit the type and importance of the offense, the severity of the punishment, the accused is likely to flee or hide, accused history, mental and physical condition and determined (Javanmard, 2014) however, cast financing should be such that it does not accused of supplying ability and thus be arrested because providing such supply will be borrowed by the judiciary violations.

### 4 Term of deferred prosecution and its consequences

If all conditions had delayed issuing a judicial authority must consider the circumstances of the parties to the case appropriate time to determine compensation or satisfaction of the complainant. Deadline should be fit on the one hand have the accused at the time the compensation and on the other hand

accused of abuse and further losses are not the victim. According to Article 82 of the Criminal Procedure Code following the issue of postponement of prosecution by judicial authorities on the accused the maximum two month deadline is the complainant went to school or compensation of crime act (Khaleghi, 2016) If the deadline fails to compensate damages or satisfaction to draw victim where appropriate, judicial authorities only once, can apply for the extension. Judicial authorities according to the circumstances of the case could be extended to two months of postponement of the chase. To renew two of postponement should be noted. First, as the primary issue, the judicial authorities have no obligation to extend and second, although the deadline for victim satisfaction or dissatisfaction of the legislation is silent but judicial authorities shall also draw the victim's consent to an extension. In other words, as may have been issued without the consent of the victim is absent; there is also the possibility of extension. The question that arises here is: that if the defendant during the victim not delay any action for compensation are the deadline postponed orders can be canceled?

In response to this question can be said on the basis of the compensation of crime and when nothing is done by the defendant in this case can be terminated orders. On the other hand it can be argued that the delay with the agreement of the parties and judicial officials and legislators to not allow any of them terminate issued without the consent of the other. Upon completion of the above-mentioned deadlines if the plaintiff's consent or damages to compensate the victim draw and the criminalization of offenses passed (in accordance with Clause 1 of Article 100 of the Penal Code offenses are crimes that started after the arguments of prosecution and trial and the penalty is subject to the plaintiffs and the lack passed him (Asrafilian, 2002) is a judicial authority in accordance with paragraph B of Article 13 of the Criminal Procedure Act to issue the cessation of prosecution and ordered the release of the accused as well as providing derived from exports. If unforgiving crime of crimes (in accordance with Clause 2, Article 100 of the Penal Code unforgiving crimes are crimes and the plaintiffs and passed him at the start of prosecution and trial and continue to implement punishment has no effect) in this case, if the plaintiff shall be passed or be compensated for his loss or agreed to be paid on and criminal convictions is accused of lacking judicial authority may, after obtaining the consent of the accused, according to article 82 of the Code of Criminal Procedure suspend his pursuit of six months to two years. But if they fail to implement deferred prosecution case will run its normal course.

### 5 Criminological assessment of the deferred prosecution

Deferred prosecution is the prosecution theory of restorative justice and the principle of proportionality and the imitation of Legislative France's penal system of our country. Prior to the adoption of this institution, the length of the criminal process allowed offenders before completing the process, the consent of the victim draw and thus benefit from legal discounts, but with the arrival of the penal system took it official that its effective implementation is undoubtedly a benefit for litigants and society. On the one hand losses into private claims paid him less time will be needed to achieve their rights during all stages of the criminal process (Sabouhi, 2015). On the other hand gives the defendant the opportunity to satisfy the victim and taking over the case, he shall cease or suspend prosecution or punishment use. The criminal justice system also can be closed off such cases the initial stage of creating additional costs and the accumulation of criminal cases avoid the time and have more power to handle high-profile cases. However, adoption of this institution is very blessed and admirable but how to accept criticism has noticed legislator. The first criticism that can be raised about the delay in prosecution related to the scope and range of the institution. Territorial Legislature limited the issuance of the crime were sentenced to six degrees, it has seven and eight, such an issue should be mandatory on most crimes, including offenses passed and unforgiving predicted. The vast

territory in accordance with the principles of restorative justice has been delayed prosecution and the rights of the injured party of the crime and the rights of society does not contradict any because one of the conditions for issuing the consent of the victim and judicial authorities as the representative of society and prosecution whenever he felt the issuance of this will be to the benefit of society refused to issue it. Legislator on the one hand prosecutes certain crimes (such as a crime under the penal code 699) regarding this crime is considered possible. This kind of blatant contradiction with the principles and objectives of the institution's limitations and cannot have any justification (Niazpour, 2011).

The issuance of crimes punishable by the legislature in retaliation and Diego did not anticipate; while the forgivable given the right human and many of these crimes about which there is the possibility of postponement of issuance. Including some that can be issued in respect of such and is based on article 255 of the Penal Code was enacted in 2013 and when will the expanded complained, enforceable and run it on demand. Thus, according to the law is pure and the issuance of no objection in this regard but in other cases such as adultery, sodomy, drinking alcohol and was basically right of Allah and do not have private complainant and often private prosecution is not in the issuing of such an problem. The crimes punishable by death and a member and past crimes punishable by Diego as well as the plaintiff's complaint in this regard have great importance. The legislator should not be limited to crimes sentence was delayed issuance of the territory; it would be possible to postpone the issue to be sued in all crimes that affected the effective mass and respects the rights of people it is a huge aspect of god predict according to which the entity is useful for victim and society better and optimal use of it.

### 6. Conclusion

Today, for various reasons the prosecution of offenders in the criminal procedure legal, criminological, management are pure asymmetric approach taken by the various changes to the Criminal flexible approach has been adopted. These developments have caused judicial and criminal policy of criminal prosecution for providing the core objectives of the Code of Criminal Procedure benefit of new strategies. Restorative Strategies compromise a deferred prosecution that is the most striking aspect of the Code of Criminal Procedure in prosecution horizontal is further. The privatization strategy or compromise the identity of the criminal prosecution of criminal case and offenders and victims together in order to determine the step response. Therefore, the agreement between official and offenders is the essence of this strategy and the same old nature / Traditional Criminal Procedure Code changed and it is grounds for pursuing or stops it in the pre-hearing and change the type and manner of response in criminal prosecution as well.

Privatization strategy and the agreement of the prosecution, as one of the strategies criminal regressive, traditional criminal justice where the basis for unilateral expression of the will of the judicial authority and respect for the expressions of it was provided by the offender, accredited with the will of the accused / offender has suffered a break. Namely, criminal justice strategy in the light of the just seek to impose unilateral punitive policy is not predetermined, but expedient approach to the critical and comprehensive assessment of all aspects related to the crime, the various stages of criminal proceedings, state actors criminal case and how to respond to the reality of crime and most appropriate way of your choice. In this way, the privatization of criminal prosecution strategy that the criminal process and against the will of the tripartite actors (ie the judicial authority, victim and offender) type and the nature of the criminal justice response to crime as a matter of criminal law has been introduced. The strategy for changing how we respond to crime, lead to changes in the nature / essence of criminal law provided as a result, the criminal justice system into a platform for dialogue and community representative, this time the (judicial) and criminal conversion is made. As criminal's

satisfaction to impose some answers as one of the most important criteria was introduced. Criminal case prosecution delayed the outcome of this new and significant shift in the territory of the Code of Criminal Procedure prosecution in criminal proceedings whereby the prosecution accused the terms of the agreement, especially between him and the victim of the judicial authority for a certain period stops. This method as an example of the strategy of suspending the prosecution of criminal case or it is subject to the Code of Criminal Procedure.

This means that those involved in the criminal justice this time instead focus on prosecuting the accused as soon as due to the fact that the public interest requires the prosecution of the accused is only in accordance with the teachings of the above-mentioned strategy to measure public interest and the consequences of its withdrawal shall deny prosecute the accused or the prosecution continued to be disproportionate to suspend. However, the deferred prosecution agreement, the criminal case prosecution strategy is one of the methods in the field of criminal policy of Iran, lacks the legislative history and the first Iranian legislator affected by the results of clinical criminology especially in the Code of Criminal Procedure Act of 2013 MFI has predicted, in the meantime, education, criminal justice practitioners optimal use of this method and culture among the public about the benefits mentioned methods play a significant role in the granting of the status of teaching and the effects of criminal prosecution, including deferred prosecution agreement, whether play role in the realm of legislation and what happens in the realm.

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## FEASIBILITY STUDY OF THE PATENT SYSTEM EFFECTIVENESS ON FOOD SECURITY

<sup>a</sup>MOHAMMAD ISSAEI TAFRESHI, <sup>b</sup>MAHMOOD SADEGHI,  
<sup>c</sup>MOHAMMAD REZA FOOLADI

<sup>a</sup> Professor, Faculty of Law, Tarbiat Modares University,  
Tehran, Iran

<sup>b</sup> Associate Professor, Faculty of Law, Tarbiat Modares  
University, Tehran, Iran (Corresponding Author)

<sup>c</sup> PhD Candidate in Private Law, Tarbiat Modares University,  
Tehran, Iran

Email:<sup>a</sup>TAFRESHI@modares.ac.ir

<sup>b</sup>sadegh\_m2000@yahoo.com, <sup>c</sup>mrf20002000@gmail.com

**Abstract:** The patent system is responsible for solving the technical and industrial problems through innovation. To determine the effect of the patent system on food security, the mechanisms and functioning of the patent system should be known in promoting innovation. By examining the elements of food security, we can examine the mechanism impact of patents on the basic elements of food security, particularly the availability, access and stability. Implementation of new processes and products, in particular, new varieties and improved farming are the key factor in increasing performance and improving agriculture and the food production. The patents by strengthening the knowledge-based economy and industrial growth caused by it could lead to the increasing per capita income and stability in accessing to adequate food.

**Key words:** patent, food security, agriculture, industry

### 1 Introduction

Lack of food security is considered the basic problems of each community. Fixing any of the problems of society by the government requires the approach and policies that define the legislative and operational framework. Determining these policies in the field of food security depends on the food security factors and indicators. It means the factors that will help to persons to distance from the vulnerability and the risk lack of food insecurity or factors that lead the ordinary people toward the vulnerability and the risk lack of food insecurity (Stamoulis & Zezza, 2003).

A patent is a tool that with the support of certain forms of innovation, in various industrial fields, in the form of granting exclusive monopoly business, seeks to achieve the economic goals and the progress of science and technology. The question is, achieving these economic and technology goals helps food security factors in what areas. Assuming the acceptance of the strengthening possibility of some food security factors, through the patent system, how does it realize and how the legislators of this country can use the patent system, to strengthen food security.

To answer these questions, we first need to identify the common elements of food security and the patent system and then evaluate the influence way among them. Study the concept and nature of food security shows that numerous factors affect directly or indirectly on food security that among them, agriculture and the economy have deeply relation with the patent system. Agricultural production, according to the nutritional needs of society plays a major role in food security and the patent system support the production of new varieties could provide the beginning of transformation necessary in this area. It can also strengthen the relation between industry and university and attract foreign investment, in the field of knowledge-based industries, and strengthen the knowledge-based economy.

#### 1.1 The concept and logic of patent system

A patent is a legal entity that was formed with the advent of Industry and Technology, and legal systems regulate it in order to support the development of new technologies. Patents, according to what has been detected in the contemporary period in legal systems is the statutory monopoly with respect to certain business practices, such as production, storage, distribution and sale of commodities, including patents in the case of patent

conditions for a limited period (World Intellectual Property Organization, 1997). If the invention was not about a certain product, and it has presented a new process to solve a technical problem, supporting it, include supporting for any product or product resulting from the process.

Accordingly, the results of each patent system should be a synergy encourage of science, wealth, and economic growth through two main strategies: 1. to reward investment in innovation by granting a monopoly; 2. early disclosure of initiatives information to accelerate the dissemination of science.

The patent will be taken into consideration with any basic, from the perspective of economists; it is an economic entity that interacts with other entities of economic system such as market with the right holder, the society and consumer. Each legal entity must be adjusted in such a way that could balance the interests of these factors in harmony with other institutions so that the least waste will be achieved. In particular, the resources are not available freely and in unlimited amounts. In economic analysis, the creator is evaluated as the producer and the community and consumer are classified of intellectual effect in the consumer class. Therefore, the benefit of an intellectual phenomenon depends on the amount of production and consumption. Due to this, people who think and have capital try to keep their attention focused to satisfy consumer demand and try to provide more consumer satisfaction and welfare. To clarify that with regulating any legal rule, whether resources are allocated to its most efficient use, the criteria of cost - benefit is used (Coleman, 1980). In this field, two fundamental questions about legal rules will be answered: What is the impact of legal rules on the behavior of economic factors? In addition, whether such impacts of legal rules are socially desirable (Kaplow & Shavell, 1999), and in fact, the legal economy analysis means applying the economic efficiency standards about the legal norms (Schafer & Ott, 2004).

The result of applying the above criteria to the patent system is that, since the creation of monopolies needs high cost, we should calculate the net social benefit surplus maximization of knowledge and information to the cost of producing them. Because of this insight, the following questions will emerge 1. Whether due to the monopoly, right amount of information and knowledge will be created at the appropriate time? 2. Whether the created knowledge and information can be used in the industry to provide the maximum social benefits for producers and consumers of goods and services? 3. Whether the ambient condition for creating new knowledge, is in such a way that it reduces its production of social costs to its minimum amount (David, 1993).

The patent institution from this perspective is a policy making institution that uses the efficient sole means for maximizing benefits and minimizing transaction costs. In any area such as food security, we must separately match the approach and above methodology to evaluate the effect and the effectiveness of the patent system. In the debate, namely food security, we must examine the rules to patent, on increasing agricultural production and accessing to them on the one hand and strengthening the knowledge-based economy and factors such as employment and income levels.

#### 1.2 The concept of food security

After an explanation and review the way of the patent system performance, it is the turn to the concept of food security and extracting its conceptual elements, so that to recognize the performance of the patent on each of these elements. The concept of food security, over the past five decades, has been changed according to the needs and complexities of the problem of hunger in the world and its differentiation with food shortages, poverty and hunger, is taken into consideration. As a result, these conceptual evolutions, the elements of food security,

and as a result, contributing factors to the lack of food security are studied in detail. Here, we investigate each of these two things, in legal literature, on food security.

**2 Elements of food security**

The concept of food security, in the 1950s, simply meant food availability in the economy and most of its discussions were about the National Food production. Green Revolution in the 1960s has improved the food security and in the 1970s, the concept of food security has entered the communities and international documents, and it was formalized (Babu & Gulati, 2005). Given the ambiguity of the concept of food security and its impact on policy, its debates about the definition has abundant prosperity, to the extent that some say, up to 200 definitions have been provided for it (Mukharjee, 2012; Willaarts, 2014).

Until the 1970s, the element of food shortages was more paid attention. World Food Conference, in 1974, with an emphasis on effective elements in food availability, defined the food security to "the availability of adequate supplies of food, at all times, in order to maintain and stable of food intake and eliminate fluctuations in production and prices (Clay, 2003).

In the second period of the evolution of the concept of food security, with emphasis on the balance between supply and demand, food availability was emphasized along with the availability of food. "In 1983, the World FAO also emphasized on the access to food and provided the definition, which aims to consider the balance between supply and demand in food security definition as: "to ensure that all people, at all times, have physical and economic access to staple needed foods.

In the third period, from these developments, the stability or sustainability of food security was considered. In addition to present the World Bank report on poverty and hunger 1986, it was emphasized on transient causes of food insecurity. In this report, the distinction between food insecurity, due to the structural problems of poverty and temporary food insecurity,

resulting from natural or economic crises, were emphasized. Before that, in 1981, some writers with famine theory on the impact of production, labor, trade and transfer of resources were focused on access to food. World Commission on Environment and Development (WCED), in 1987, stated that, to sustain food security, three areas related to food security, meaning the economy, justice and the environment should be considered by knowledge and experience, simultaneously.

According to a recent definition, food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet essential needs and food preferences for an active and healthy life. In fact, in the fourth period, with the emphasis on education and nutritional value, it was paid attention to the point that the lack of food security is not necessarily associated with hunger, but quality of food and the way to consume it had been considered and any abuse feeding, even if not accompanied by hunger, destroys food security.

Therefore, the forming elements of food security are including availability, access, stability and benefit. Now, to identify the patent mechanism influence way on these elements, the factors contributing to the strengthening or weakening of any of these elements will be taken into consideration.

**3 Factors affecting the food security**

The purpose of factors affecting the elements of food security is something that, though, may not have direct contact with the food, but for any reason, they affect on the production, distribution and consumption of food (figure 1). Naturally, each of the food security elements (availability, access, stability and utilization) is under the effect of external factors such as market conditions, globalization, macroeconomic approach, training and policies in the health field. It is clear that these factors are outside a simple process of the food supply and policy and decision-making about them cannot cope with an institution or ministry (agriculture) (Stamoulis & Zezza, 2003).

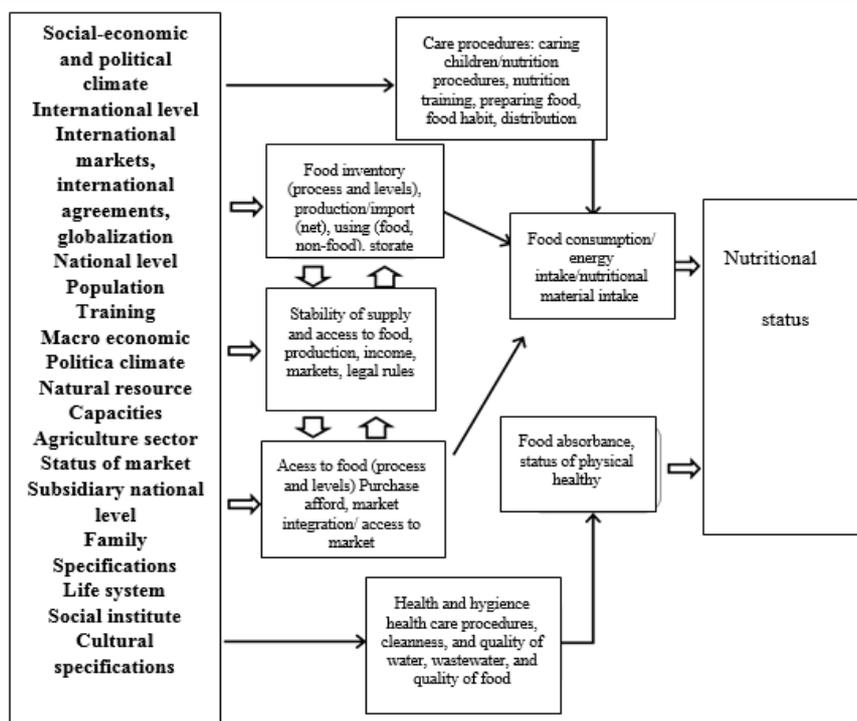


Figure 1: external factors affecting food security

According to the two-level approach, vulnerability and its management must be discussed (Chambers & Conway, 1992). Policymakers of the countries and relevant international institutions have tried to present more programs that are comprehensive, about the problem of food insecurity with respect both levels. FAO World in 2002 presented a plan to help the Food Security National Strategy for countries. The plan seeks to explain the member states focus on the issue of hunger, food security and agricultural and rural development to the multidimensional nature of food security. According to the multidimensional nature as well as both levels of food insecurity, any planning and policy in the field of food, security should be done with the participation of the custodians of the agricultural sector, trade, economy and social welfare. So that it had adequate integrity and required political commitment will be formed to fix the problems in this area and mobilizing resources will be formed in sufficient quantities (Stamoulis & Zezza,

2003). Strengthening sustainable agricultural and rural development, paying attention to the root causes of food insecurity such as productivity, public sector reform and decentralization, peace and security and reforming macroeconomic policies are the main axes of the FAO global plan (Stamoulis & Zezza, 2003).

Table (1) is based on the plan drawn by FAO. The first row in the table dedicates for rehabilitation of food system, especially for reforming food economy system, including in terms of the agricultural production, technology, diversity in the food processing, markets and consumption. The second line makes the options available to provide access to food for vulnerable individuals and groups (Clay, 2003).

Table 1: Policy levels to strengthen food security

Dual levels	Existence	Access and use	Stability
1. Rural development / Improving production	Improving the provision of food to vulnerable persons Improving food production, especially by small farmers in rural areas Investment in rural infrastructure Investing in rural markets The revival of the livestock sector Rehabilitation and conservation of resources Improving income, and other factors availability of food	Reconstruction of rural institutions Improve access with assets Guarantee access to land The revival of rural and financial systems Strengthening labor market Mechanisms to ensure food safety Social rehabilitation programs	Diversification of agriculture and workforce Food vulnerability monitoring Eliminating the structural causes of food insecurity Re-integration of refugees and the homeless The introduction of analysis and risk management Restoring access to savings mechanisms and credit system
2. direct and immediate access to food	Food aid Input assistance / seed Re-storage, livestock capital Restoring the ability of the market	Monetary exchange / Food Redistribution of assets Social rehabilitation programs Involvement in nutrition programs	Reconstruction of the social safety net Monitoring the effects of vulnerability and direct involvement making peace

The approaches presented by the World Food Conference in 1996 have considered the same things:

Encourage to sustainable production of food, reinforce the use and optimal allocation of public and private investment and rural development system, enabling vulnerable individuals, to ensure physical and economic access to food, ensure that agricultural trade and food policy are in order to strengthen food security and ensure the government's readiness to meet food needs in natural disasters. In the World Food Conference in 2002, it was also emphasizing the decisions of the summit in 1996, and the impact of factors such as political will, access to technology, erosion of natural resources, especially water and the effects of the rural economy and poverty reduction in rural areas. The Assembly also emphasizes on the strengthen role of trade and the use of biotechnology in removing poverty, hunger and a fair and sustainable maintaining of genetic resources.

Paying attention at the same time to both approaches is essential to solve the problem of food security. Policy, to ensure sustained economic growth, alongside structural problems and macroeconomic, structural reform and enough attention to non-food factors, can lead to solving problems about food security in the short and long term, in general and consistently.

#### 4 Patents and food security

Attention to the economic basis of the invention support in these supporting systems of the patent system can act as an essential tool to help both the above objective. Then, after examining the possibility of supporting the plant innovation, in the patent system, we study the effect of the patent system, in both agriculture and industry and their implications for food security.

#### 5 The impact of patents on agricultural strengthening

In a sustainable agriculture, the production should be noted that reduces the use of pesticides and chemical fertilizers and practices that were harmful to health and the environment, to meet the needs of food, health and protect the rights of future generations. This is emphasized on The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). Sustainable agriculture that is derived from the concept of sustainable development means attention to economic aspects, as well as other humanitarian and security needs in in the long term (Dutfield, 2006). Agricultural sustainability on the need to develop new technologies, which lead to improvements in food production and it has emphasized on less costs and negative side effects. In sustainable agriculture, no technology, or practice will be excluded such as transgenic technology or practices of organic farming based on non-scientific reasons. In addition, it is attempting to balance between the interests of traditional agricultural practices and formal systems of the seed supply (Chiarolla, 2011). Other pillars of sustainable agriculture are increasing agricultural productivity. According to some studies, the use of biotechnology and genetically modified plants create an average of \$ 250 per hectare benefit. Gains from biotech crops, for Argentina, until 2005, was \$ 20 billion, mainly due to the supporting approach of this country and acceptance of biotech crops, from day one, while with the countries technology owner, such as America and Canada. On the other hand, increase the income of farmers causes the increasing demand and strengthening commodity markets and services in the respective areas, and these conditions lead to an increase in employment and incomes and strengthen food security.

Another problem, related to sustainable agriculture is population growth and the consequent increase in food and agricultural needs and the shortage of agricultural land (Babu & Gulati, 2005). Among 51 billion hectares of land, 8.3 billion hectares were usable for agriculture, and 1.35 billion hectares of it is desirable for agricultural use, that almost all of the value is in use. Annually, 10 million hectares of these lands are released for various reasons. According to FAO statistics, there are less than 0.25 hectares of agricultural land per capita with right productivity.

This means that it is necessary, states plan in such a way that gains more products from less level of agricultural. To solve this problem, three approaches come to mind: an increase of fruitfulness, increasing the volume of crop and further land use. According to a study in 2000, 63 percent of shortages must be solved through enhanced product fruitfulness, 15 percent through enhanced crop culture and 22 percent by finding new agricultural lands. Regarding the fact that so the next Green Revolution of genetically modified varieties will be produced through technology. Given that, most fertile lands that can be used in this regard are in some countries in Africa and Latin America, for most countries, the use of the first option, ie an increase of fruitfulness, in particular through genetically improved varieties will be the main policy. Therefore, it is said that the next Green Revolution will be through genetically modified varieties production technology.

Table 2: the performance of Bt cotton varieties than non-GM cotton (percent)

	Argentina	China	India	Mexico	South Africa
<b>Fruitfulness</b>	33	19	34	11	65
<b>Profitability</b>	31	340	69	12	299
<b>The cost of pesticides</b>	-47	-67	-41	-77	-58
<b>The cost of seed</b>	530	95	17	165	89

Therefore, farmers in third world countries can benefit from this technology, but access to appropriate technology in competitive terms, institutional arrangements, such as intellectual property rights, national research capacity, non-deterrent regulations in the field of safety and health, trade regulations and the efficient system of supplying sources has a fundamental importance in the distribution of benefits of this technology. To make use of new technologies, such as genetic modification technology, and help food security, food security policies should facilitate the access to new technologies related to food production and strengthen the research in the field, particularly with the aim of developing local required figures, that protection of innovation through intellectual property plays the most important role in this regard. Some researchers believe that if the system of intellectual property will be in order to strengthen food security, the current legislation should be reviewed and policies appropriate to national circumstances should be considered.

The patent system, it is possible that, in particular, innovation, in areas that need more urgent to innovate and focus on investment in that field will be felt, will be encouraged. For example, in the UK, because of the urgent need to innovate to solve environmental problems, in 2009, the plan "Green path" was run, which allow patent declaration, in this field will be resorted in a different process. The main objective of this project is to strengthen and encourage the development of low-carbon technologies, which is better for the environment, which, apart from the environmental benefits, it could guarantee the competitiveness of the British economy in the future world. In practice, the plan "Green path" provides creative active businesses in the field of green technologies, and the accelerating chance of acquiring the rights to inventions and based on those patent statements, quickly and in less than nine months from the date of demand, the result will be reached.

In addition, because many third world countries do not have the capacity to supply all their needs of agriculture through domestic production, they heavily influenced by developments in agriculture in developed countries. Because, developing countries are benefiting well from technology, especially the genetic modification technology and it heavily effects on the quality, productivity and cost of products. Some countries, such as Brazil, Argentina and India have been able to transform themselves and to be in charge with a large share of the global market with transferring technology and strengthening innovation in the field of agriculture.

Studies show that the use of transgenic technology leads to reduce costs, increase profitability and increase agricultural production. In addition, the economic impact study of this technology shows that the popular notion that the transgenic values will influx interests to large and multinational biotechnology corporations is not true; on the contrary, it can be in the interests of farmers and consumers. As it is specified in the table 2, farmers and countries that have used improved varieties of transgenic for cotton farming in developing countries, have experienced more fruitfulness, less cost for pesticides and higher net income.

On the subject of debate, after careful study about the food security needs of each country, through the consideration of special privileges for producers of seed and plant varieties, we should attract the investments to meet those needs. For example, the Islamic Republic of Iran, strongly, faces with the shortages of water, that, in this context, the development of improved rice varieties, free from flooding and wheat, with low water requirements and cotton, with more than double fruitfulness are considered.

## 6 The impact of patents on strengthening the economy and industry

Enabling the transfer of technology from public universities and research institutions to industry is also national goals to help economic progress. Transfer of Technology here means the knowledge from the study and scientific research turning into products and valuable processes. The practical application of research that was done with macro governmental funds in universities and research centers depends on its results transfer to industry. This process normally will be elaborated through patent system, especially appropriate disclosure of invention information and operating licenses. Technology transfer and encouraging operation licensing is desirable because, it enables small and startups companies to have the advantages of a monopoly in trade negotiations, regardless of market competition.

Major science and technology in developing countries will be produced at universities or public research centers and with a state budget that their results remain unused in many cases.

What leads to unused academic research in developing countries is the lack of relation between these researches and their commercial applications in the marketplace, because universities are unwilling to commercialize their research results on the one

hand and the private sector and companies are unwilling to use the research centers on the other. To make the relish, between academia and industry, policy makers should provide a framework that, while entering the private sector, in the field of research, place universities and public research centers in a direct relation to the trade market and encourage the technology transfer and exploitation of it. The role of the patent system policies, in filling this gap is essential in promoting selling and exploiting licenses of research results and other forms of technology transfer and joint research activities. Registering university and research centers results in the form of patent papers will lead them to useful, practical, and new research and send them to business companies for the issuance of exploitation licenses and subsequently, the technology transfer from university to industry will be more. In addition, it provides motivation and the perfect base for private companies to strengthen the investment in this area. Usually, companies cost 50 to 100 times more than the initial cost of operating license paid to the University for Technology Development. The government can determine the universities' budget with a measure of the success of public universities and research centers in the registration and commercialization of innovations by industry.

Now it must be recognized, the patent system, in general, has the above function. However, this function, in different fields, has the strength and weakness. The function of the support system in the field of agricultural biotechnology is palpable more than other areas, because biotechnology research and development is much more expensive than other areas, and drawing intellectual and financial investment in it, needs more support. This matter will be effective in two ways of internal investment in the required research on the country and attracting knowledge-based foreign investment in the economy, agriculture and industry in the country. As well as lawmakers and enforcers of the patent system careless about the element of informational disclosure of the invention has decreased the efficiency of the patent system in third world countries.

## 7 Result

In this paper, by extracting elements of food security and factors affecting it became clear that each of these elements in some way influenced by new technologies, especially the biotechnology and allocation of public and private funds. On the other hand, with studying the nature and logic of the patent system, it became clear, the patent system, to strengthen innovation, will act by creating incentive system and creating a link between investment and production of science and technology.

Given the above matters, this matter was reviewed that how the patent can have an impact on each of the elements and indicators of food security. Elements of food security include availability, access, stability and utilization, so, if it is detected, encourage of innovation and production of technology lead to an increase in production, facilitate access and stable the production and access, it can be said that the impact of patents is specified on food security.

Food existence, at the national and local level the most important food security element, though it is not sufficient element and necessarily it does not mean access for all people to food. It is clear that innovation and implementation of new processes and products, particularly new varieties and improved farming are the key factors in increasing yield and improving the quality and quantity of agricultural products. The patent system leads to an increase varieties adapted to local conditions, and may also lead to higher prices or reduced free availability of farmers to seed and influenced food intake. Due to the economic basis of the invention of the support system, the patent system can act as an essential tool to help these.

Increasing agricultural production helps food security by increasing the income of the rural and poor as well as through

self-sufficiency in food production and price stability. Reduction of food prices in the local production of agricultural products reduces household food expenditures and creates employment for low-income classes' villages and small towns. Attention to technological innovation and commercialization strengthen have a key role in boosting agricultural production. For example, it may be imagined, the priority of food security requires the production of agricultural products, which have a role in providing essential food, take priority, but given the importance of commercialization, it must be said, essentially, we should not content to these matters and products that lead to more agricultural income and employment, also could be considered. If part of the population that lack food security could provide high yielding and modified varieties and the use of modern technologies, grow products that have faster and more commercial profitability, the hope to solve food insecurity, in their case, will be higher.

Sustainability in agriculture is other pillars of food security. Food production through the use of traditional varieties with low productivity, high water consumption, use of pesticides and chemical toxins ... that cause damage to other areas of human life such as health, biodiversity, and ..., do not lead to solve sustainable food insecurity. Here, food security requires that, by supporting the development of new varieties that are resistant to pests and tolerant to drought, along with other forms of agriculture, such as agricultural mechanization, solving food needs will be coordinated by meeting other needs. Policy, based on this approach requires adequate information about the relation between food security and other areas in terms of physical infrastructure and social arrangements.

In another aspect, the patent, by strengthening the knowledge-based economy and industrial growth, because of it can lead to increase per capita income and stability in accessing adequate food. By strengthening the relation between industry and academia and attracting foreign investment in the field of knowledge-based products, Patent system can strengthen knowledge-based economy and employment and income, and increasing employment and per capita income has also helped to strengthen the element of access and stability.

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## REVIEW OF THE DETERRENT RULES GOVERNING TORTIOUS RESPONSIBILITY

<sup>a</sup>MOHAMMAD DEHGHANI, <sup>b</sup>IBRAHIM SHO'ARIAN,  
<sup>c</sup>IBRAHIM TAGHIZADEH

<sup>a</sup> PhD student in Private Law, Graduate Center of PNU

<sup>b</sup> Professor of Department of Law and Faculty Member of Tabriz University

<sup>c</sup> Associate Professor of Department of Private Law, PNU

Email: <sup>a</sup>Mohammad.Dehghani.law2017@gmail.com,

<sup>b</sup>Ibrahim.shj.2@gmail.com, <sup>c</sup>Ibrahim.tag.2@gmail.com

Abstract. Specific deterrence is a kind of function that civil liability can have to deter the imposer of harm from harming the victim again. On one hand, emergence of this type of insurance caused weakness of civil liability and increase in carelessness, since compensation of loss by the insurer can not result in deterrence of fault agent, but also it may encourage the doer and others for harmful and damaging actions. In this study, it has been tried to define firstly the concept of civil liability and especially tortious liability and to investigate the basis, nature and pillars of liability. Then, we have given some cases in field of committing harmful act and fault in tortious liability. Finally, this study has investigated deterrence cases in civil liability and the relationship between insurance and civil liability.

Key words: tortious liability, loss compensation, deterrence, civil liability, specific and general deterrence, insurance

### 1 Introduction

In all law systems, the main responsibility of law at the society is preventing commitment of harmful acts and making required decisions to compensate losses caused by such actions. Hence, it is competent to say that the principle of compensation for inadmissible losses, along with two other principles of ownership respect and contract binding power can be the summary of all civil rules. Civil liability that forms an important part of civil law is same legal liability and commitment of person to compensate losses inflicted on other party as a result of documented actions and as a result of taking harmful act, which may be caused by violation of contract and artifact of essay will of individuals or violation of legal obligations.

Civil liability includes two branches of contractual and non-contractual liabilities. If a contract is signed between two or more people and one of them has violated the contract (refuse to take action or delay in completing commitment) and a loss is inflicted on the other party, the violator of contract has contractual liability and should compensate the loss. When a person causes loss for the other party, whether there is a contract between them or not, the loss is not associated with the contract and this case is non-contractual liability.

The obligations out of the contract or civil liability refer to the liability created as a result of legitimate or illegitimate actions with no adequate contract. Civil Code has emphasized the obligations in articles 301-337 under the title of "obligations incurred without a contract"<sup>1</sup>. The foundation of obligations without a contract is the benefit created for a person or loss caused for the person; it means that these obligations are always caused by a benefiting or harming legal act. For example, if a person has caused loss on another party intentionally or as a result of carelessness, the person should compensate the loss. However, in this case, obligation without contract and mutual consent of parties is created<sup>2</sup>.

Till 18<sup>th</sup> century, civil liability was not separated from criminal liability and is used to be described as fault-based liability, tort or civil fault. Accordingly, two goals of deterrence and loss compensation were defined for civil liability. Although civil liability was separated from criminal liability since 18<sup>th</sup> century, its deterrence is still being regarded as one of the main goals of

civil liability even in presence of all criticisms (Can, 419, Williams, 1951, 137). Emergence and promotion of liability insurance could weaken civil liability deterrence on one hand and could strengthen its loss compensation on the other hand because of fast compensation of loss for the injured party and guaranteeing it and supplying expenses easily.

### 2 Concept of tortious liability

The origin of this kind of liability is the rule of law, which is out of framework of contractual relations. It could be mentioned that tortious liability refers to responsibility of person to compensate inflicted loss and harm for the other party based on rule of law because of taking harmful act or violation of property or service of the other party such as liability caused by confiscation, loss and inadmissible fault (Katuzian, 2006).

In Iran Law, Civil Code has given civil liability under the title of "obligations without contract" as an independent section and has investigated this issue under the title of tortious liability. By 1960, an act was approved under the title of Civil Liability, which was mainly associated with obligations without a contract. Hence civil liability in its specific sense refers to same obligations without a contract or tortious liability; although in its general sense, it includes both forms of liability (contractual and tortious).

In field of concept of tortious liability, if it is assumed that two people have signed no contract and one of them causes loss for the other party intentionally or by fault, the non-contractual liability or without contract is realized. Tortious liability is the liability to compensate loss caused by an act or leave an act that is fault and crime from perspective of law (An-Naqib, 1984). Moreover, it could be mentioned that tortious liability is the liability caused by violation of an obligation that was previously codified by law. Such obligation is general and violating it could be compensated through presenting lawsuit to ask for loss compensation (Badini, 2005).

#### 2.1 Nature of tortious liability

The lawyers believe that necessity to compensate losses in tortious liability is in line with legal events, which is considered in group of means to create commitment and includes events that their effects are determined by law. In Civil Code, these effects are called as obligations without a contract and tortious liability. Hence, some lawyers believe that no term can encompass various means of tortious liability such as legal events and they can infer on this basis (Katuzian, 1995).

Although in an overview both liabilities end in compensation of loss for the harmed party, in contractual liability, parties are limited and in tortious liability, commitment is general. In terms of amount of the loss in contractual liability, just direct and predictable losses can be demanded while conclusion of the contract. However, in tortious liability, the loss caused by any kind of direct loss can be demanded, whether it is predictable while conclusion of contract or not (Al-Sanhuri, 1998).

#### 2.2 Foundation of tortious liability

Searching for foundation of tortious liability should be in collection of regulations and not in expressions of parties as a title referring to non-contractual liability. It means that tort refers to this issue that in relations of parties after the realization of loss is impossible in position of need for interpretation or other obligations of following the contract. This is because; there is no will at all for realization of the liability. According to one expert in this field, contractual liability is violation of commitment caused by contract and the sign of obligation without a contract is violation of commitment by law. This difference is enough to separate the two types of liability and to consider independent identifies for them (Yazdaniyan, 2000).

<sup>1</sup> In addition to the mentioned articles, Civil Liability Act, Law on compulsory insurance of liability of owners of vehicles against third party (edition of 2008) and articles 316-366 of Criminal Law approved in 1991 have also played key role to define tortious liability in Iran Legal System.

<sup>2</sup> Droit civil, carbonnier, 20ed, t.2, no198

Contractual liability is caused by violation of commitment between limited entities and these entities have created the commitment by themselves; although in tortious liability, the law creates the commitment and the commitment is against everyone.

### 2.2.1 Fault

Fault is one basis of civil liability and in Iran Law; it is at least one important basis and foundation of liability. In article 1 of civil liability act, liability is mainly defined on basis of fault. Whereby this article, if a person inflicts loss on another party as a result of carelessness (fault), the person is responsible to compensate the loss and no responsibility is existed for the person without commitment of fault. In fault, differentiation and lack of differentiation of the doer (individual element) is not obligatory, but also typical element and common personal behavior should be considered. Hence, to determine the fault, reasonable and careful human behavior should be considered and following common human behavior is required for carefulness.

In an assumption that there is no reliable contractual relationship to regulate mutual relations or the victim has no tendency to follow the lawsuit based on tortious liability, solving the dispute and determining the probable liability of the doer would be based on regulations of tortious civil liability according to opinion of majority. Hence, 3 elements are required to achieve this liability:

### 2.2.2 Harmful act

Accordingly, doer of harmful act is responsible to compensate the inflicted loss, when the harmful act is attributed to him/her. Also, the doer is responsible for compensation of loss, when the act is taken without legal permission (Sepahvand, 1974). In article 1 of Civil Liability Act, the term "without legal permission" is referred; meaning that the person is not responsible to compensate loss if the action is taken with legal permission. Every person who causes loss or harm for property, life or freedom of another person as a result of carelessness and without legal permission or causes harm or dignity or commercial fame of a person that results in material or spiritual loss, the person would be responsible to compensate the loss caused by that action.

Some lawyers believe that referring to "against law" in harmful act is for this reason that although person can cause loss because of lack of prediction or intentionally, the person can't be considered as an entity with liability, since his/her action is not prohibited by law (Aminfar, 2005).

### 2.2.3 Loss infliction

In Iran Civil Code, no article has referred to loss and harm as the main element in civil liability; although in articles such as 221, 226 and 227, the term "loss" is used and from this perspective, lack of definition of these terms seems to be because of evidence of the issue (Katuzian, 1995). In some articles, this meaning can be derived. According to article 1216, "In case the minor child, lunatic or immature person, causes loss to another person, he shall be considered a guarantor for the same". According to article 520 of Civil Procedure Law, "in field of demanding for inflicted loss, the plaintiff shall prove this that the inflicted loss is created immediately by lack of acting to commitment or delay in it or lack of submission of demand; otherwise, the court will reject the claim of demanding for compensation of loss". Moreover, articles 1 and 2 of Civil Liability Act have referred to principle of harm.

Harm should be certain and absolute. Hence, in order to make the harmed party to demand for the loss compensation, the harm shall be proved, since according to principle of absence or based on probability, no one can be liable and hence, one condition for compensable loss is certainty of the loss and harm (Shahidi, 2003). Now, an issue considered here is the harm that is not created till now and may be happen in future as a result an accident that is already happened (Emami, 1998). In this field,

some lawyers believe that necessity of compensating future losses are imagined in both tortious and contractual liabilities (Al-Sanhuri, 1964). Also, some others have separated the future and probable loss and believe that the first type loss is compensable and the probable loss in present time and future is not compensable (Aminfar, 2005).

### 2.2.4 Causal relationship between harmful act and loss infliction

To realize the liability, it shall be authenticated that there is causal relation between loss and harmful act, meaning that the loss is caused by the harmful act. However, to create an accident, the accident should be in dominance of binding conditions of realization of loss; it means that it should be authenticated that the loss is not created.

Such relationship can be extracted as it is mentioned in article 328 of Civil Code: " If anyone destroys the property of another person, he will be held responsible and must either produce its equivalent or its value, whether or not the property was destroyed intentionally and whether it was the actual property or profits there on that were destroyed; if he causes defect or damage to such property, he is responsible for the depreciation in price". Noting to this article shows that in law, to realize loss, direct causal relations should be created between loss and the act of doer. In article 331 of the said law, existence of this relation indirectly is emphasized. The later section of article 1 of Civil Liability Act has also mentioned that person is responsible for compensation of loss caused by harmful action, if the action has caused material or spiritual loss and this can refer to necessity of causal relation between harmful act and loss inflicted.

### 2.3 Factors affecting civil liability

In regard with factors affecting civil liability, 4 factors are mentioned as follows: a) ethical aspect of behavior of the defendant b) ease of enforcement c) loss tolerability and d) deterrence and punishment. Hence, this study has mentioned just two factors based on necessity.

#### 2.3.1 Ethical aspect of behavior of the defendant

One factor affecting civil liability is ethical aspect of behavior of the defendant. In other words, ethical fault or criticism attributed to the defendant and mental status of the defendant by the society can be one of the mentioned factors.

Personal behavior and ethics are issues that there are various beliefs and opinions on them; although it should be accepted that in every society, there are actions and motivations recognized as proper ethical actions and there are also some other acts and motivations that are wrong ethically and morally and are regarded as fault and certainly, beliefs can affect decisions made by courts. About the Tyrant, guilty, liar, rascal, traducer and rumors maker and a person who inflicts loss on a neighbor for his/her own benefit, a selfish person violated rights of a neighbor as a result of carelessness and intentional inattentiveness, it is expected that courts sentence such person based on public opinions. On one general hand, the law related to civil liability can be a reflection of moral thoughts and beliefs and has preserved its adjustment with change in the mentioned beliefs; although the theory has not been always right and there are basically disputes on this issue that how the mentioned laws are begun.

#### 2.3 deterrence and punishment

The deterrent factor of loss infliction in future in cases related to civil liability is also very important and hence, the courts pay not only attention to compensation of loss for the harmed party, but also they consider punishment of the guilty. When the result of decisions made by the court are cleared and the defendant is informed that he/she may be responsible for the action, this sense

of responsibility can be a strong stimulant to prevent causing loss in future.

Liability of successor is considered more than other cases and the liability of good manufacturer against the consumer is considered more than other types of liability, since the liability of manufacturer can cause achievement of good in best manner by the consumer. Although such idea is less considered, it can be valuable cause to consider liability for the defendant. The theory of prevention of loss infliction is similar to crime punishment. Because of the crime committed, the punishment can be one of the most accepted goals and destinations by the civilized governments to deter recidivism (William Prosser, the obligations, 1965).

#### 2.4 Fourth discussion: liability for compensation

To determine compensation, the criterion is the amount of inflicted loss to the harmed party and not the amount of fault of the doer and this is one item for separation of civil and criminal liabilities. In tortious liability, the assumption of giving compensation or paying in cash may be done using brand and causing loss for the owner of the brand, which can be compensated with some money. In contractual liability, most of the times the compensation are done in same manner and this approach the most common approach. One of the most important elements of liability if loss infliction. If there is a contract and if the loss is not caused by it, the liability is obligation without a contract.

For example, a ship causes damage for the seafront and the loss is caused by contract; although is not related to lack of acting based on contractual commitments, since the commitment of custodian has been shipping the good that is fulfilled and the loss has been result of violation of a contract that has no contractual source (Jordan, 2007).

Another example is transportation of passengers for free. The lawsuit is presented in cases that it is hard to recognize that is there any contract or not. Some lawyers believe that the act is similar to contract; although the liability of the custodian is not contractual liability (Hosseini Nejad, 2009).

In French Law, some lawyers believe that according to article 1105, charity contracts are existed; although others believe that the relations are just on basis of politeness and customs and out of contract.

It seems that one can consider this type of liability as contractual liability, since even in this case, transporter take the passengers for free and safely. Although safety commitment is in kind of commitment by vehicle, the liability of the driver is based on strict liability according to Compulsory Insurance Law and is a loss is caused, there is no need to prove fault of the driver and it is in benefit of the harmed party to refer to tortious liability of the driver.

The law dominated on tortious liability is the low dominated on the place of accident, since it is created as a result of liability of a religious relationship. In such relationship, adequate law is the law by religious origin. In the American Law, the dominant law in tortious liability is law of place of committing a crime and the adequate law is the dominant law of contractual liability, which can be place of conclusion of contract or the law agreed by both parties (Loubser, 1977). In U.K Law, the conditions are absolutely different.

### 3 The amount of compensable loss in tortious liability

#### 3.1 Predictable and non-predictable

Popular opinion is that as predictability of loss is a condition in contractual liability, the liability can be limited to predictable losses; although in tortious liability, the person is liable for any kind of loss. The problem with tortious liability is that the loss is

not on basis of will of parties and the liability is imposed based on law.

In legal terms, it could be mentioned that something happened by natural affairs as a result of a fault is attributed to doer and unexpected affairs are not attributed to action taken by the doer. In French Law, article 1150 of Civil Code mentions that "A debtor is liable only for damages which were foreseen or which could have been foreseen at the time of the contract, where it is not through his own intentional breach that the obligation is not fulfilled" (Mazeaud et al., 1965). The discussion is considered under the title of farness of loss and predictability in Common Law. In obligations without a contract, the criterion for predictability is time of taking a fault and in contract, the date of agreement is considered and not the date of fault (violation of contract).

#### 3.2 Punitive damage

This kind of damage in Common Law is not considered for loss compensation, but also it is considered to amend or prohibit the defendant from taking actions causing loss for the plaintiff. This kind of damage can be demanded just in tortious liability; although the procedure is different in different countries of Common Law. For example, in Australia, only the guilty and in U.K, only some agents of fault may be sentenced (Loubser, 1997). Moreover, in case that violation of contract is regarded as tortious liability, the doer is competent to get punitive compensation. Punitive compensation can be more than loss compensation. This kind of compensation is existed in England, Commonwealth states, the United States, Japan and New Zealand.

#### 3.3 Spiritual damage

In many legal systems, spiritual compensation could be received just in lawsuits of tortious liability. According to Common Law, if violation of contract causes physical or mental harm or anxiety, spiritual damage may be considered in addition to material damage caused by the contract. In French system, spiritual damage is considered with no difference in contractual and tortious requirements. Moreover, limiting attitude of spiritual damage on attribution to tortious lawsuits was rejected in lawsuit "jarris. vs. swanstours ltd" on 1973. Same result is also obtained in negligence of attorney to present the lawsuit<sup>3</sup>. This kind of separation is not applicable in Iran Law.

#### 4 Role of deterrence in tortious liability

In Iran Law, this issue is investigated implicitly. For example, article 386 of Commerce Law shows that an important issue is attempting to make required decisions and accident prevention precautions. In Iran Law, some lawyers have not considered same role for unpredictability.

Regarding note of article 337 of Islamic Penal Code shows that the legislator in this law believes that Inevitability is the binding condition of Force majeure, since it has declared explicitly that force and tort factors are factors out of limit of power and authority.

If the aim of civil liability is deterring the harmed party to have harmful act in future, it is required for the party to pay compensation to an extent that is enough for this purpose, although it is not true in practice and the cost that the doer is charged to pay as compensation may be more than this amount or too low that may have no effective deterrent effect. The act of the harmed party is a case of external cause that can remove the liability of the defendant with realization of force majeure or reduce it and there is no necessity to consider fault in conditions of force majeure for disclaimer of the defendant.

<sup>3</sup> Damages for vexation and distress were also awarded in a case where a solicitor failed to institute proceeding to restrain molestation of the plaintiff by a particular individual, with the result that the molestation continued

To make civil liability as adequate mechanism for deterrence, it is required to create direct relationship between degree of fault of the doer of fault and intentional or unintentional nature of the action and the amount of compensation of loss. However, the relationship is not existed in practice and no attention is paid to degree of fault or intentional or unintentional nature of the act in field of issuing sentence for loss compensation.

On the other hand, a person with intentional or heavy fault may be charged to pay insignificant cost as compensation; although the other one with insignificant fault may have to pay a lot as compensation (Gibson, 1993; Waldron, 1995).

If liability of a person is considered on basis of objective fault, it may have no deterrent effect in some cases, since the criterion for being guilty is same in this case and individual properties are not considered.

In relation with the losses caused by accidents and human mistakes that are common today, deterrent effect may not be considerable, since in most cases of the current world, accident and human mistakes are inevitable effects of human faults and use of machinery and can't be prevented<sup>4</sup>.

Hence, it should be mentioned that issuance of sentence to compensate losses can not only deter the doer of fault from harmful and antisocial acts in future, but also is can be a lesson for other members of society, especially those who are more talented to make loss for others because of their special position and there are many lawsuits against them.

In other words, civil liability can be pressure leverage on them who have political, economic and thinking power at the society and can change their behavior in such manner that they feel responsible against the society members. In fact, private law plays supervisory role through this with guaranteeing rights and freedom of citizens (Rogers, 2002).

If deterrent regulations of civil liability are not existed, people consider only their own benefit and prefer their personal desire to safety of others. Sanctions of civil liability force individuals pay attention to interests of others too and show behavior that is accepted socially. This issue can reduce accidents and losses caused by the accidents to considerable level in long-term (Sugerman, 1992).

More importantly, civil liability today plays controlling role through the theory of abuse of rights in social relations and can make individuals violate social foundations to apply some regulations (Delbecque, 2001).

Certainly, civil liability can play key role in general deterrence and even social reforms and legislation and in some cases and lawsuits, the harmed parties may take such action for money (even in tortious liability) and not for the principles and ideals that lead to effective deterrence and reforms and also ignoring lawsuit by them may not be because of deterrent rules and ethics, but also it may be because of high costs of trial. Moreover, similar to specific deterrence, this type of deterrence can also affect only the behaviors that are needed by subjective state and not every kind of behavior (Cane, 1996).

Therefore, it seems that criminal, labor, administrative and disciplinary sanctions can play this role in better manner.

On the other hand, in some laws, there is another type of deterrence that is applied under the title of specific deterrence. The aim by specific deterrence is the role that civil liability can have to deter the doer of fault to inflict more losses. This type of deterrence is against general deterrence, which means prevention and deterrence in social level and preventing other people of the

society from taking harmful act in future. The general deterrence is also divided to two types of general deterrence in economic sense and general deterrence in noneconomic sense (Cooke, 1999).

Deterrence in noneconomic sense is creation of safety regulations and standards and determining sanctions for violation of the standards. On the other hand, if the injured party has not observed the standards, the amount of compensation to him/her would be reduced. Through this, the law has created some encouragements for safe behavior. Based on economic sense and concept of deterrence, the cost of losses caused by an economic activity should be paid by the individuals involved in that act. If the cost of preventive actions is less than the compensation paid by the doer of fault on the injured party, the doer of fault will take deterrent measures to prevent the damages (Cane, 2006).

Hence, in some legal systems, typical insurance plays deterrent role in civil liabilities (and some examples of tortious liabilities). However, it seems that despite to existence of liability insurance, deterrent role of civil liability is still remained strongly. The person can only be insured against the damages caused by unintentional faults and the civil liability insurance of intentional fault is illegal and may be regarded against public order and even there are some doubts in field of civil liability insurance of heavy faults (Mazeaud, et al., 1965).

With the emergence of liability insurance, civil liability deterrence was weakened and using strategies innovated by insurers and legislators to reduce behavioral risk can't recover deterrence of civil liability at all. On the other hand, supporting the injured parties and fast compensation of losses and reduction of social damages caused by accidents and development of insurance institute is a social requirement. Hence, in Compulsory Insurance Law (2016), efficient regulations are codified to create relative deterrence and prevention of increased carelessness and emergence of behavioral risk of insurance. In new legal economic analysis that supports the principle of fault and applying it, one can't observe denial of advantages of liability insurance with behavioral control tools.

For example, if one tends to use same regulations of traditional legal system for the accidents arising from traffic and if the intention is to make the injured party to prove the fault, this would be impossible in some difficult and complicated cases. To prevent such conditions and to adjudicate rights of the injured party, despite to traditional system foundations, civil liability of Compulsory Insurance Law has assumed liability of the holder or the driver and if the fault is not proved because of force majeure or proving fault of third party or fault of the injured party by the driver, the driver or holder would be innocent; otherwise, the driver should compensate the loss of the injured party (Dehghan, 2013).

This is because of typical liability that holders of vehicles are recognized as liable party and should compensate the losses without proving their fault by the injured party. The legislator has made it binding for holders of vehicles to have Third Party Insurance and insurance company can decrease many difficulties and problems through facilitating loss compensation. Hence, it could be found simply that insurance has facilitated compensation of losses through regarding liability of holders as typical liability and through making third party insurance compulsory and through ignoring personal loss compensation and considering a common system of loss compensation (paying by insurance companies).

Many doers of fault are not covered by liability insurance even in some fields such as traffic accidents that insurance is obligatory and hence, they have to compensate losses in person<sup>5</sup>. Because

<sup>4</sup> This issue is mostly true for traffic accidents. It is proved that people make a mistake in average per mile and as a conclusion; every common driver in Washington makes 9 driving faults per 5 minutes (Markesinis, & Deakin, 1999).

<sup>5</sup> In compulsory insurance, having no insurance while accident may lead to deprivation from driving and this issue is indirect effect of civil liability and can be regarded as an important deterrent factor. Through codifying some driving and traffic rules such as fastening seatbelt while driving that is a kind of tortious liability can also play key deterrent role in this field.

of being beneficiary in field of reduction of accidents, insurance companies consider some approaches to encourage and punish the insured parties (such as attributing insurance fee of everyone to history of accidents), which can be a deterrent factor. In cases that compensation of loss is taken by social security or projects of loss compensation or funds and special regulations, deputy of insurance institutes and the government on behalf of the injured party to refer to the guilty can preserve deterrent role of civil liability and tortious liability<sup>6</sup>.

## 5 Conclusion

Civil liability has two branches including contractual liability and non-contractual liability. If there is a contract between two or more parties and one of them violates the contractual provisions and loss is inflicted on the other party, the violator of the contract has contractual liability and should compensate the losses. In cases that a person inflicts loss on another party without existence of contract or in presence of contract, the loss is not attributed to the contract and the discussion here is related to non-contractual liability.

In Iran Law, Civil Code has presented civil liability under the title of obligations without a contract and has investigated its specific issues under the title of tortious liability. By 1960, a law was approved under the title of "Civil Liability Act", which was mainly related to obligations without a contract. Hence, civil liability in its specific sense refers to same obligations without a contract or tortious liability; although in its general sense, it includes both types of liability (contractual and tortious).

Fault is one of the foundations of civil liability and in Iran Law; it is at least one of the most important bases of liability. In article 1 of Civil Liability Act, the liability is mainly considered based on fault. To realize such liability, 3 elements are required as follows: a) harmful act: on this basis, doer of harmful act is responsible to compensate the loss inflicted on other party to whom the harmful act is attributed b) loss infliction: loss shall be certain and absolute and hence, to ask for compensation of loss, the injured party shall prove the fault of the doer, since according to the principle of no harm and based on probabilities, no one can't be liable c) causal relation between harmful act and loss infliction: to realize liability, it should be authenticated that there is casual relation between loss and harmful act; meaning that the loss is caused by the harmful act.

Preserving liability based on fault is required because of its deterrent effect. However, extension of systems based on strict liability such as strict liability caused by objects and dangerous activities can result in social welfare and efficient allocation of resources with the aim of providing coverage of private insurance and internalization of social costs of accidents.

With the emergence of liability insurance, civil liability deterrence was weakened and using strategies innovated by insurers and legislators to reduce behavioral risk can't recover deterrence of civil liability at all. On the other hand, supporting the injured parties and fast compensation of losses and reduction of social damages caused by accidents and development of insurance institute is a social requirement. Hence, in Compulsory Insurance Law (2016), efficient regulations are codified to create relative deterrence and prevention of increased carelessness and emergence of behavioral risk of insurance. In new legal economic analysis that supports the principle of fault and applying it, one can't observe denial of advantages of liability insurance with behavioral control tools.

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## Primary Paper Section: A

## Secondary Paper Section: AE

## THE RELATIONSHIP BETWEEN TIME MANAGEMENT AND EMOTIONAL INTELLIGENCE WITH THE EFFECTIVENESS OF PHYSICAL EDUCATION TEACHERS

<sup>a</sup>ZOHREH KOMIJANI, <sup>b\*</sup>MAHVASH NOORBAKSH,  
<sup>c</sup>PARIVASH NOURBAKSH

<sup>a</sup>M. A, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>b</sup>Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>c</sup> Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

Email: <sup>a</sup>zohrehkom@gmail.com,

<sup>b</sup>mahvashnoorbaksh@yahoo.com,

<sup>c</sup>parivashnourbaksh@yahoo.com

**Abstract.** The purpose of this study was to investigate the relationship between time management and emotional intelligence with the effectiveness of physical education teachers of Karaj city. The statistical population is the physical education teachers of Karaj city (N=750). Based on the Morgan Table the number of samples are 250. Validity of the questionnaire is obtained using Chronbach alpha method which is 0.94 for time management and 0.93 for emotional intelligence and 0.88 for effectiveness. The results of the present study showed that there is a positive and significant relationship between the dimensions of the time management (monitoring, interaction, protection and description of the job) with the effectiveness of the teachers and there is a significant relationship between emotional intelligence and the effectiveness.

**Keywords:** Effectiveness, emotional intelligent, physical education teachers. Time management

### 1 Introduction

We live in an organizational society. Organization as a fundamental basis of modern society plays a major role to meet the expectations of societies and human resources has a vital role for such organizations. Thus considering the needs of employees and providing the mental and physical health of them as well as their satisfaction has a great importance in order to increase the productivity and efficiency of the organization. Nowadays, one of the main sources of stress "as the main reason of the burnout" is the excessive work pressure and not having enough time but as the work pressure is varies significantly between individuals and consequently the mental stress is not the same for everyone . Jung (2011) expresses that due to the active work environments of today's organizations the managers needs to provide fundamental changes in their management method for the survive of the organization and the ability to be powerful in the global competition cycle. Time management cycle is considered as one of the best method to utilize the time which starts with setting goal that underlies the time management. Time management is that of putting much more time to think about responsibilities, not doing duties in a shorter period of time (Lucas 2008) furthermore, time management includes several skills, such as Self-discipline, goal setting, interrupt handling, techniques for organizing Affairs, etc. this skill will lead to elimination of many sources of organizational stress and reduce the related side effects, (Melk Ara, 2009). In addition to rational intelligence, this intelligent is has also a considerable effect in personal job and life guidance (Bar-On 2006), has investigated this subject in a research named "the emotional intelligence of managers". This research shows that the rational intelligence is not adequate for the twentieth century. Based on the Goulman (2003) the emotional intelligence includes personal and social components and the personal components includes self-awareness, self-adaptation and motivation while the social components includes sympathy and social skills wherein each has the related subsets. Generally, emotional intelligence refers to competency in identification, understanding and expressing emotion in oneself and others which has four region, 1) understanding of emotions 2) accessibility and production of emotions 3) Knowing emotions 4) management emotions (Mayor et al., 2004). Here, teachers as the most effective components in schools are responsible for educational promotion of students and targeted actions of the organizations, (Baldauf and Cravens, 2002). Researchers believe the effectiveness is

used in all the components of the organizations and it is not acceptable for an organization being not effective (Kazemi 2016). Effectiveness is considered as one of the most important issues in the field of organizational behavior (Chelladurai & Haggerty 1991). Papadimitriuos & Taylor (2000) believe that effectiveness is the main issue in the scientific field and attention to effectiveness, develops the organizational theories. According to Medley et al., (1982), having knowledge and various skills, is called competence of the teacher and application of these knowledge and skills is considered as teacher performance. Therefore, researchers who are trying to understand the effectiveness of teacher, should be able to connect the teacher competence and performance with educational goals. Shilbury and Moore (2006) stated in his research that due to vast changes in the today's world and more intense competitions, many researchers have focused on the design of effective strategies for rapid and effective performance of the organization, and in this regard, education organizations are no exception. Jihadi et al (2016), Melinde et al., (2014), Lindebaum (2012), Elena et al., (2011), James & Lobus (2010) have pointed, directly or indirectly, to the relationship between time management, emotional intelligence and effectiveness, in separate studies. So it is important that human resources in the educational environments, have good performance and effectiveness. Application of emotional intelligence in teachers can be effective in their effectiveness.

As discussed earlier the emotional intelligence is not a new research area but the effects of emotional intelligence on the performance of teachers has not yet been studied in details. While there are many research on the effect of emotional intelligence in academic success of the student the related research on the effect of emotional intelligence of the effectiveness of the teachers is not adequate. Thus this research aims to investigate the role of emotional intelligence on the effectiveness of the physical education teachers in order to answer that how is the relationship between the time management and emotional intelligence with the effectiveness of the performance of the teachers?

### 2 Methodology

This research is a descriptive-correlational in which the researcher investigates the relationship between the variable of research using questionnaires. The statistical populations are all the physical education teachers of the Karaj city, primary, secondary and high school teachers which includes 750 teachers. Based on the statistical population and according to the Morgan table 250 teachers are selected as statistical samples in a classified random method. For measuring the variable of the research the time management questionnaire of the Burt et al (2010), the emotional intelligence questionnaire of the Bradberry and Greaves (2005) and the effectiveness of the teacher's questionnaire of Choo and Bowley (2007) is used.

#### 2.1 The Measurement tools

Three questionnaire is used to measure the variables.

**Time management questionnaire:** This questionnaire which has been made by Burt et al., (2010) includes 28 question with five options according to the Likert five-point scale with the options, completely agree, agree, neutral, disagree and completely disagree which are identified by 1, 2, 3, 4 and 5 respectively. This questionnaire includes five components, which are monitoring, employees interaction, description of work process, protection of the time management process and time values wherein the related Chronbach alpha coefficient are 0.94, 0.88, 0.82, 0.83, 0.83 and 0.7 respectively.

The emotional questionnaire of Bradberry and Greaves (2005): This questionnaire has been always the most common and well known scale for evaluation of work burnout. The questionnaire includes three independent scale which investigate the behavior from 28 different aspect which is evaluated with the marks 0-5, never-always. In this research the Chronbach alpha coefficient is obtained 0.93 for emotional intelligence and for the self-awareness, self-management, social awareness and the relationship management its value is obtained 0.8, 0.77, 0.74 and 0.84 respectively.

**The effectiveness of teacher’s questionnaire:** this questionnaire is made by Choo and Bowley (2007) which includes 28 five-option question based on the Likert five-point scale having the options completely agree, agree, neutral, disagree and completely disagree having the points 1-5. The

Chronbach alpha coefficient for the effectiveness variable is obtained 0.88.

After gathering questionnaire, the obtained data is analyzed using SPSS software, version 23. To analyze the data in descriptive statistics, tables, relative frequency percentage and standard deviation is used while in inferential statistics the Pearson correlational statistics method among with the step to step multivariable regression and statistical examinations is used. The value of probability of the error tolerance is set to  $\alpha=0.05$  in this research.

**3 Results**

Table 1- shows the descriptive statistics of the variables of the present for the teachers.

Table 1: descriptive statistics for the variable of the research based on the gender

variable	Statistical indices							
	average		Standard deviation		Minimum score		Maximum score	
	man	woman	Man	woman	man	Woman	man	woman
Time management	3.73	3.54	0.54	0.76	2	1.04	5	4.82
Monitoring	3.7	3.54	0.63	0.85	1.88	1	5	5
Interaction	3.83	3.58	0.64	0.84	1	1	5	4.8
Job description	3.72	3.58	0.66	0.94	1.83	1	5	5
Protection	3.62	3.48	0.63	0.89	1.83	1	5	4.83
Values	3.97	3.55	0.75	0.99	2.33	1	5	5
Emotional intelligence	3.89	3.8	0.4	0.73	2.64	1.07	5	5
Self-awareness	4.17	4.03	0.49	0.74	2.67	1	5	5
Self-management	3.63	3.68	0.51	0.73	2	1	5	5
Social awareness	3.76	3.61	0.46	0.91	1.8	1	5	5
Relationship management	4.05	3.88	0.5	0.84	1.75	1.25	5	5
effectiveness	4.06	4.04	0.42	0.54	3.05	1.62	5	5

**3.1 Inferential statistics**

Hypothesis 1. There is a simple relationship between the emotional intelligence and its dimensions with the effectiveness of the female physical education teachers of Karaj city. The Peareson correlation coefficient is used to find the relationship between the variable of the research and the results is shown in table 2. Based on this results the relation of the time management and effectiveness is 0.27 and significance. The relationship between the monitoring, employee interaction, job description process and protection process for the time management and effectiveness is obtained 0.24, 0.35, 0.23 and 0.23 respectively. The correlation of the time values and

effectiveness was not significance and the relation of the self-management and effectiveness obtained 0.19 and significance. The relation of time management and emotional intelligence is 0.27 and significance. The relation of self-awareness with the self-management and time management obtained 0.22 and 0.3 and significance. There was no significant relationship between time management and the other dimensions of the emotional intelligence. The relation of emotional intelligence with the dimensions of monitoring, job description process and protection of the time management obtained as 0.29, 0.3 and 0.24 respectively in which the relations are significant. The relation of emotional intelligence with the other dimensions of the time management was not significance.

Table 2: the results of Pearson correlation coefficient in the female physical education teachers

	1	2	3	4	5	6	7	8	9	10	11	12
Time management	1											
Monitoring	0.88**	1										
Interaction	0.75**	0.54**	1									
Description of work	0.89**	0.71**	0.62**	1								
Protection	0.85**	0.67**	0.57**	0.67**	1							
Values	0.72**	0.59**	0.36**	0.62**	0.57**	1						
Emotional intelligence	0.27**	0.29**	0.1	0.3**	0.24**	0.57**	1					
Self-awareness	0.22**	0.23**	0.15	0.21**	0.16	0.24	0.78**	1				
Self-Management	0.3	0.29	0.1	0.32**	0.33**	0.16	0.85**	0.57**	1			
Awareness	0.16	0.25**	0.01	0.19**	0.1	0.33	0.75**	0.46**	0.55**	1		
Management of relations	0.16	0.17**	0.04	0.19**	0.11	0.1	0.81**	0.52**	0.49**	0.54**	1	
Effectiveness	0.27**	0.24**	0.35**	0.23**	0.23**	0.01	0.1	0.11	0.19	0.04	0.06	1

\*\* Correlation is significant in the level of 0.01

Hypothesis 2. There is a simple relationship between the emotional intelligence and its dimensions with the effectiveness of the male physical education teachers of Karaj city. The Pearson correlation coefficient is used to find the relationship between the variable of the research and the results is shown in table 3. Based on this results the relation of the time management and effectiveness is 0.44 and significance. The relationship between the monitoring, employee interaction, job description process and protection process for the time management and effectiveness is obtained 0.47, 0.38, 0.47 and

0.34 respectively. The correlation of the employee’s interaction and effectiveness was not significance. The relation of time management and emotional intelligence was not significance. The relation of emotional intelligence and effectiveness was not significance. The relation of emotional intelligence with the dimensions of the monitoring and interaction of the employees was obtained 0.2 and 0.31 and significance. The relation of emotional intelligence with the other dimensions of the time management was not significance.

Table 3: the results of Pearson correlation coefficient in the male physical education teachers

	1	2	3	4	5	6	7	8	9	10	11	12
Time management	1											
Monitoring	0.87**	1										
Interaction	0.71**	0.55**	1									
Description of work	0.9**	0.69**	0.5**	1								
Protection	0.9**	0.68**	0.51**	0.84**	1							
Values	0.82**	0.59**	0.52**	0.72**	0.78**	1						
Emotional intelligence	0.16	0.2*	0.31**	0.02	0.03	0.13	1					
Self-awareness	0.15	0.1	0.21*	0.13	0.1	0.18	0.86**	1				
Self-Management	0.17	0.19	0.24*	0.1	0.1	0.19	0.94**	0.8**	1			
Awareness	0.13	0.24*	0.35**	0.1	0.02	0.1	0.91**	0.66**	0.8**	1		
Management of relations	0.12	0.21*	0.34**	0.05	0.01	0.03	0.95**	0.72**	0.82**	0.89**	1	
Effectiveness	0.44**	0.47**	0.1	0.38**	0.47**	0.34**	0.04	0.1	0.01	0.1	0.01	1

\*\* Correlation is significant in the level of 0.01

**Hypothesis 3.** Time management, emotional intelligence, gender predicts the effectiveness of the physical education teachers of Karaj city. In order to predicts the effectiveness of the physical education teachers of Karaj city with time management and emotional intelligence the multivariable regression is used. As it can be seen from table 4, the correlation coefficient of the time management variable with the effectiveness of the physical education teachers is 0.36 and the coefficient of determination, which is the percentage of the reference variance obtained by prediction variables is 13%. The regression equation with the significance level of 0.00 which is lower than 0.05 is significant, thus there is a linear relationship between the prediction variable the relation reference.

In order to investigate the regression variable the step by step method is used. In this model the management variable has the most significant level of correlation with the effectiveness variable and was used in regression model. The regression coefficient is B=0.26 and the standard regression coefficient is B= 0.36, the level of significance is 0.00 which is lower than 0.05. In this model the fixed variable obtained 3.1. Thus considering the regression coefficient of time management and the fixed variable the regression equation will be as follow:

$$Y' = 3.1 + 0.3 * (\text{time management}) \tag{1}$$

Table 4: The results of multivariable regression among the physical education teachers using step by step method

Reference variable	Predictive variable	Correlation coefficient	Deterministic coefficient	Level of significance of statistics	Regression coefficient
					Time management
effectiveness	Time management	0.36	0.13	36.9 0.00	B=0.26 B=0.36 0.00

**4 Discussion and conclusion**

Based on the researches in this subject it can be found that beneficial usage of time and time management has a considerable effect toward the success. Time is the issue that no considerable attention is paid to it. Many individuals working in organizations do not use their time in a proper way which leads to many problems and prevents the promotion of the organization. Having no identified goal which leads to disorganization is among the main factor for such a problem. Thus identifying goals has to be investigated. In today’s world the identification of the reasons for effectiveness of the employees is among the main management programmers. The importance of this subject is much more in education and education organization and it is because in such an organization

the human resources are involved to transfer knowledge to individuals in their learning ages. Thus the human resources should have a suitable and effective performance. Having emotional intelligence have a significant effect on the efficiency of the teachers which has a great importance. As discussed earlier the emotional intelligence is not a new research area but the effects of emotional intelligence on the performance of teachers has not yet been studied in details. While there are many research on the effect of emotional intelligence in academic success of the student. Eslaminan et al., (2014) have investigated this subject in a research named “the relationship between the emotional intelligence and application of teaching components of the professors of the Mazandaran medical university”. Their research showed that there is a significant relationship between the emotional intelligence of the professors and application of the teaching components. David and Jousef, (2005) investigated

this subject in a research named “the emotional intelligence and its relationship with leadership performance in work place”. The analysis of correlation and regression showed that there is a significant and a direct relationship between the emotional intelligence and the effectiveness of leadership performance. The more the emotional intelligence the more the effectiveness of the leadership. Comparing the results of the David research and the present study we found that there is a direct and significant relationship between emotional intelligence and the effectiveness of performance. Hajiloo and Eyvazi (2015) investigated this subject in a research named “the effectiveness of emotional intelligence on the time management and efficacy of the students. Their results showed that there is a direct and significant relationship between emotional intelligence and time management which is in line with present study. Mollayi et al., also investigated this subject in their research with the title “Investigation of the relationship of emotional intelligence and the success of the educational managers of the Golestan University of Medical Science. According to the result of present study and the direct relationship between emotional intelligence and the success of the managers, holding educational workshop for increasing the emotional intelligence of the educational managers leads to a greater performance of the managers. Comparison of the present study and that of Mollyi et al., showed that both research are in line with each other. Dirik investigated this subject in a research named “whether the emotional intelligence is effective in the balance of the relationship between mental health and work performance? The founding in the public section of the England shows that emotional intelligence balance the relationship of the mental health and the work performance just to some extent. In this research the out coming of the management theories and performances in studied. Comparison of the Dirik research with the present study shows that these research are not in line with each other. Regarding that the increasing the emotional intelligence will balance the performance which is not in line with the present study. According to the result of the study and because the dimensions of the time management is effective on the effectiveness of the teachers it can be proposed either of the dimensions can be used to increase the overall structure of the time management. Meaning that considering all the offers of the dimensions the level of relationship between the time management and effectiveness of the physical education teachers increases. As the emotional intelligence is one of the providers of the mental health of the students it is proposed to hold educational classes to increase the emotional intelligence skills by providing budget to counseling centers of the education ministry to increase the efficiency of the teachers.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND PRODUCTIVITY OF HUMAN RESOURCES WITH A VIEW TO MEDIATING ROLE OF SPIRITUALITY IN THE WORKPLACE

<sup>a</sup>AMIR HOSSEIN AMIRKHANI, <sup>b</sup>TOHID GHOJALI,  
<sup>c</sup>SAMIRA ABDOLLAHI NIG ABADI

<sup>a</sup>Associate Professor, Payame Nour University, Tehran, Iran

<sup>b</sup>PhD student in Human Resource Management, Kharazmi University, Tehran, Iran

<sup>c</sup>MA Student, Department of management, Payamenoor University, Tehran, Iran

Email: "Amirh.amirkhani@gmail.com,

<sup>b</sup>T.ghjaji.pnu@gmail.com,

<sup>c</sup>Samira\_abdollahinigabadi@yahoo.com

**Abstract.** The purpose of the study is to study the relationship between human resource productivity and transformational leadership with considering the mediating role of spirituality in the workplace. So the employees of National Iranian Oil Products Distribution Company elected as statistical population and after selecting 195 people as statistical sample through simple random sampling. Results demonstrated that there is significant relationship between transformational leadership and human resource productivity and between transformational leadership and spirituality at work and between spirituality at work and human resource productivity. Also it was found that the full mediating role of spirituality at work in the relationship of transformational leadership and human resource productivity.

**Keywords:** transformational leadership, spirituality at work, human resource productivity, mediating effect

### 1 Introduction

Efficiency is not a new concept as old as human history. Generally, after the 1929 recession in the world so much interest in knowing the status of national income and there was economic productivity as an indicator of performance evaluation. Today all developed and developing countries of the importance of efficiency as one of the requirements of economic development and competitive advantage in the realm of the individual, institutional, national and international focus, because the countries surveyed survival in competitive world productivity. During recent decades, many countries in the world to achieve the desired level of life, improving labor productivity targets and some countries such as Korea, Malaysia, Singapore and Hong Kong through this economic considerations valuable results achieved and to help it sit higher in the structure of economic power on the base. Research studies indicate that economic development, social and political ruler of the country, especially in developing countries depends on the culture of productivity and having the right attitude and reasonable efficiency category.

On the other hand, different changes started in the late twentieth century led to a loose more traditional paradigm based on Newtonian physics in various fields including managed and in this regard, a growing emphasis on concepts such as self-control and transformative and working life and moral integrity has been done (Farhangi et al., 2009). It is clear in this context how to check the efficiency of human resources was also somewhat affected by such changes and on the basis of identification factors on increasing the productivity of human resources should be made to pay special attention to factors related to the new paradigm. Among the factors related to the concepts introduced in the new approach can be considered transformational leadership and spirituality in the workplace. In general, since the hard and soft factors, affecting the productivity of human resource discusses and the need to do more research on the effectiveness of the concepts of spirituality paradigm based on the productivity of human resources is felt. Therefore, the aforementioned base material and increase global trends arising from the paradigm focusing on the concepts of spirituality necessary to assess the impact and the concepts of productivity of human resources as the most important factor for achieving organizational goals to be felt. This study aimed to investigate

the relationship between transformational leadership and labor productivity given the role of spirituality in the workplace by the National Iranian Oil Products Distribution. In this study, the element of spirituality in the workplace as one of mediating variables in the relationship between transformational leadership and human resource efficiency are discussed.

### 2 Theoretical foundation and research topics

In general, World War II caused a change in the development of theories of leadership and several theories regarding the motivation of the followers of the theory- purpose, charismatic leadership, transformational leadership and interaction is presented. Transformational leadership by Burns in 1978 as a process through which leaders of the radical changes in outlook and behavior caused their followers, was introduced (Ralph and Masi, 2000). This theory by Bass in 1985 conceptualized and was developed further, in his view transformational leadership beyond traditional leadership development and promised a reward for the effort is rewarded based transactions (Chin, 2007). Burns defines transformational leadership as a process in which leaders and followers together to promote the ethical level. Transformational leaders are those who are able to motivate followers, the ability to inspire and commitment to gain followers. In fact, transformational leadership of interactive leadership style that only through reward and punishment-based motivation beyond and the trust and loyalty of others, outlining the dramatic landscape of potential opportunities and also to inspire followers would make a commitment to change and they are high in self-control. Transformational leadership thus contributes to individual staff, each disguised as something transformative, and the organization toward future moved (Farhangi et al., 2009).

According to Lehmann - Willenbrock et al., (2015) also transformational leadership process of influencing major changes in attitudes and assumptions of organization and commitment to the mission, goals and strategies defined. In the study, Lehmann - Willenbrock et al., (2015) based on the views Podsakoff College (1990), a measure based on six factors identified and expressed landscape, providing a suitable model, encourage acceptance of group goals, expectations are high performance, providing individual support and mental stimulation has been used for transformational leadership. Meanwhile Afejeh and Hamzehpour (2015) for transformational leadership characteristics such as the patterns of followers into leaders and admiration, respected and trusted by their followers and attention to others' needs above personal needs sharing risks with followers, grittiness and lack of personal use of power, motivate and inspire followers by giving meaning and challenge of giving leadership through their work. Follower's efforts to stimulate the creativity and innovation using questionable assumptions, framework remake the problems and dealing with the conditions of new ways and behave differently from followers based on an individual's personal needs and capabilities discussed.

Productivity at the micro level to the macro can be analyzed. However, in examining the issue of productivity should be considered equivalent to what can be achieved by adopting the views of six economists, accountants, physicists, industrial engineering, organizational psychology, industrial psychology finally, managers should be taken to investigate the matter. In accordance with the views of management efficiency in the use of resources for achieving objectives include the success and somehow also involves the concept of efficiency and effectiveness of the concept. In fact, the essential element in creating and improving efficiency, human resources and most common cause of failure in achieving the goals of the

organization can be considered related to the lack of productivity of human resources.

In this regard, Hersey and Goldsmith efficiency of human resources in the form of seven variables within the meaning of ability and skills followers is in accomplishing a task successfully. Clarity or understanding of the concept of understanding, acceptance of work, where and how they work, organizational support, within the meaning of the support needed to complete the work effectiveness follower. The concept of motivation or incentive followers incentives for successful completion of a specific task, such as daily feedback and performance assessment or feedback on the concept of casual, credit within the meaning of the appropriateness and legality of decisions regarding human resources managers and the environment in the context of factors affecting performance of individual power. Despite, having the ability and role clarity and motivation have been classified.

In recent decades, the concept of spirituality and its applications in the world and especially in the West have been of great interest. So that the arrival of such concepts as God, religion and spirituality that were considered private issues into academic research in the humanities and managed. In general, theoretical foundations in various scientific disciplines that have addressed the resurgence of spirituality based on dissatisfaction with the status quo (Joanna, 2010).

Actually, introduction of these concepts as ethics, truth, belief in God and a superior force, meaning savings in labor, altruism, and ... in the field of research and management actions and indicates the emergence of a new paradigm have business and according to many researchers. This new paradigm based on quantum physics, science, cybernetics, chaos theory, cognitive

science, western and eastern religions and rituals, and the reaction to modern mechanistic paradigm is dry, is the spiritual paradigm.

In this regard, Kennedy (2002) believes that satisfies the high demands of employees in an enterprise environment can also be searched pattern spirituality. In fact, on one hand the undeniable importance of human resources in the organization. On the other hand, given the importance of spirituality in human life, attention to spirituality in the workplace is also highlighted. According to studies to date, spirituality in the workplace is one of the emerging concepts in management literature and from the perspective of managers as source organizations that can help them in times of turbulent and chaotic, support decreased gradually.

Mitref and Denton (1999) spirituality at work trying to search and find fans in person for working life, in order to establish a strong relationship between the individual and colleagues that somehow involved in his work, also Gybnz (2001) as well as a sense of spirituality in the sense of integrity, continuity and deep appreciation of the work is known. Also in terms Marquez (2005) spirituality in the workplace means there is a sense of trust, belonging, respect and meaning in all fields for a more perfect life. Salman et al., (2011) spirituality in the workplace beliefs and values associated with goals, as well as religious beliefs are known. In general, according to Nasyna and Doris (2011) defined three main viewpoints on spirituality in the workplace can be pursued: Religious approach, introspective and existential. Spirituality in the above-mentioned approaches in order to comply with the orders of a particular religion, it is considered within the meaning savings in the workplace. Dimensions of spirituality in the workplace in Table 1 are given.

Table 1: Dimensions of spirituality in the workplace

Source	Dimension
Milliman et al., (2003)	Significant work (individual level): a deep sense of meaning and purpose in individual work, the sense of community (the group): continuity and connect with others, to comply with the values of the organization (the organization): a strong sense of harmony between personal values and corporate objectives
Pandey et al., (2009)	Coordination with, in coordination with the social and natural environment; Excellence
Karakas (2010)	Model anchors 9 Spirituality
Rego and Cunha (2008)	Common sense of team; alignment between personal and organizational values, a sense of contribution to society, feel exposed and opportunities for inner life
Ashmos and Duchon (2000)	- The individual level include: at work, inner life, personal responsibility, positive connections with other people, thinking and reflection, the group includes: integration business unit, business unit positive values; organizational levels: organizational values, people and organization

In general, the machines, the complexities of life lead to a lack of balance and imbalance for employees on course to achieve the goals. As a result, spiritual and psychological pressures in the workplace. Alvani et al., (2013) based on the model developed based on religious principles are expressed human resources to improve productivity that organizations should act to develop a culture of moderation in the organization. The model presented in this study is one of the aspects of human resources, balancing spirituality and researchers noted consider culture of moderation. Jamshidi and Ghahfarokhi (2013) in a study to examine the relationship between organizational spirituality and labor productivity measure based on the results obtained positive correlation between spirituality and productive members of society was approved. In fact, spirituality in the workplace can provide productivity benefits for enterprises, including the promotion of human resources organization and thus facilitate the achievement of goals. Osman - Ghani (2013) the influence of religion and spirituality study aimed to evaluate the performance of employees in multicultural organizations and several religious piety and spirituality on positive and significant relationship have focused on employee performance.

Also in accordance with the vision of Karakas (2010) as well as spirituality in the workplace leads to several advantages such as improved staff attitudes job and thereby also the performance, profitability and organizational effectiveness and influence. Based on the view of Ahmadi et al., (2014) spirituality in the workplace is having a significant relationship with organizational citizenship behavior. In fact, in contrast to the concepts of spirituality in the workplace such as organizational cynicism by creating favorable working conditions can improve the underlying performance of the underlying obligation and employee productivity.

Leadership style can be used as a factor for direct and indirect impact on organizational efficiency and employee productivity in organizations. In fact, the *raison d'être* and responsibilities of managers in organizations can play a role of leadership in order to achieve better resource efficiency and human resources, particularly. As the transformational leadership through communication and navigation - support for the establishment of relations between the abilities of employees with futuristic goals,

as well as provide the context necessary to strengthen performance.

Also Vincent - Hooper et al., (2012) in another study, the significant impact of transformational leadership on career success have confirmed. On the other hand the theory of multifactor productivity and systematic model selection and development of human resources in the organization (Manabams), the most important factor that can increase productivity requirements for organizations providing human resources, transformative leaders, successful and effective organization. In this regard, (Ralph & Masi, 2000), in their study stated those transformational leadership behaviors can lead to high levels of productivity. House et al., 1988 in review studies on the relationship between transformational leadership and performance has underlined. In fact, transformational leaders tend to empower and motivate subordinates to influence their commitment in achieving their objectives (Ralph & Masi, 2000). Also according to Joanna (2010) can be said that transformational leadership is associated with higher levels of needs and focused on inspiring involvement because of the importance of intellectual stimulation transformational leadership. It can be based on this idea with the idea of trying to integrate rationality and soul in spiritual leadership and transformational leadership through the descriptors compatible inspire linked with spiritual leadership.

In general, there is no doubt that fundamental changes in the workplace are forming and spirituality will be one of the key issues. Slowly the small environment of economic and social organizations soon becomes an environment for spiritual growth. If viewed from this perspective led to dramatic changes in the method of measuring the effectiveness of leadership occurred.

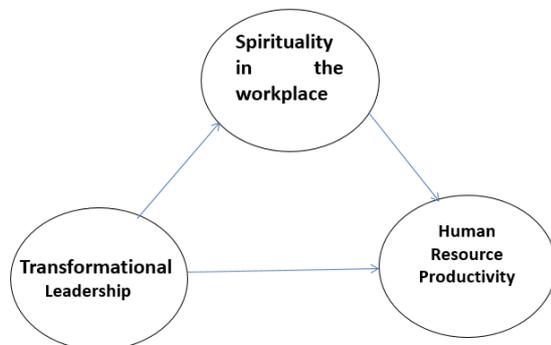


Figure 1. The conceptual model

Mac et al., (2011) also aims to investigate the relationship of spirituality in the workplace, transformational leadership and employee welfare on the role of spirituality in the workplace mediator in the relationship between transformational leadership and employee well-being have emphasis. Karacas (2010) In moments of spirituality based model, multidimensional model of leadership styles and values individual differences as a new compass provided leadership in the 21st century which can provide useful insights for managers and practitioners in the field

of leadership with regard to the concept of spirituality in the workplace. Also in accordance with the Farhangi et al., (2009) the integration of spirituality and leadership in turbulent conditions stable source of meaning in the work environment provided for the creation and ongoing and the need for unity among spirituality, business leadership is an inevitable consequence of chaotic era and now leaders must respond to questions related to meaning. The leader inspires people to grasp the complexities of working capacity increase and inspiring vision. Ghadi et al., (2013) also on the positive role of transformational leadership have focused on the creation of meaning in the work of follower. Based on the conceptual model those previous research findings of the analysis and combination of models used in the research literature, (Figure 1) that the hypotheses of the study below are given.

### 3 Research Methodology

Hypotheses of the research are as follows:

- I. There is a significant relationship between transformational leadership and productivity of human resources.
- II. There is a significant relationship between spirituality in the workplace and productivity of human resources.
- III. There is a significant relationship between transformational leadership and spirituality at work.
- IV. Spirituality in the workplace in the relationship between transformational leadership and productivity of human resources plays a mediating role.

The purpose of the research and study in term of the nature is descriptive and survey. In order to collect information related to the theoretical foundations of library and to gather data to test the hypothesis-standardized questionnaire was used. The transformational leadership model to measure Besvavlio (1997), to measure spirituality in the workplace questionnaire Milliman et al., (2003) and to measure the efficiency of human resources of models Hersey and Goldsmith (1980) is used.

In this study, Cronbach's alpha was used to determine the reliability of the test. Moreover, its value is obtained for all questionnaires 0.96. Also in this study, the experts confirmed using Content validity. The population of this study includes employees of National Iranian Oil Products Distribution and in order to collect research data using simple random sampling of 195 people chosen as sample and collected data using SPSS 16 and Amos 18 software and using structural equation modeling approach were analyzed.

#### 3.1 Testing hypotheses

To test the hypothesis in this study, structural equation modeling approach was used. Therefore, you must model overall indicators related to test research hypotheses examined and then ensure proper fitting indicators necessary to test hypotheses. The results in Table 2 indicate good indicator of overall fitness and overall fit indices and it could be well supported by data from the model.

Table 2: Overall indicators structural equation models

	CMIN/ DF	P	GFI	CFI	RMR	RMSEA	PCLOSE
Acceptable value	$0 < X < 3$	$X > 5$	$X > 0.9$	$X > 0.9$	$X < 8$	$X < 8$	$X > 5$
The first hypothesis model	1.59	0.085	0.96	0.98	0.027	0.064	0.295
The second hypothesis model	1.21	0.186	0.94	0.98	0.037	0.038	0.65
The third hypothesis model	0.842	0.745	0.961	1.000	0.045	0.000	0.974
The fourth hypothesis model	1.74	0.061	0.903	0.951	0.043	0.072	0.051

After reviewing and confirming the overall fit of the model in terms of indicators, action research is to test hypotheses. To test the hypothesis that a significant part of the index P used must ensure that the level 0.95 is less than 0.05. According to Table 3, according to the partial value of p to three first hypothesis is less

than five percent ninety-five percent confidence level, it can be argued that a significant relationship between transformational leadership and human resource efficiency and spirituality in the workplace as well as spirituality in the workplace and the productivity of human resources has been approved.

Table 3: The results of the first to third research hypothesis

Hypothesis	Hypothesis	Impact factor	P	Result
First	Transformational leadership ← Spirituality in the workplace	0.67	***	Confirmed
Second	Spirituality in the workplace ← Productivity of human resources	0.88	***	Confirmed
Third	Productivity of human resources ← Transformational leadership	0.86	0.03	Confirmed

The fourth hypothesis to examine the mediating role of spirituality in the workplace in the relationship between transformational leadership and human resources was carried efficiency. Baron and Kenny logic for this purpose has been used. The Baron and Kenny take on the role of the following three conditions must be met through a variable: independent variables have a significant effect on the mediator (path A), it have a significant effect on the dependent variable mediator (path B) and if A and B are controlled by the significant relationships between independent variables already there was not significant and dependent on others. In fact, in this method, without the presence of the mediator investigate the relationship between the independent variable dependent and significant action if it can examine the role of mediator.

However, if the independent variable and because of the mediating role of mediator to be a significant variable related to verification and the independent variable significantly associated with the presence of the mediator through the mediation of minor and in the absence of significant independent variable associated with the presence of the mediator will be faced with a complete mediation. The first method presented in the paper Baron and Kenny in 1986 and quickly became the most common test method was a significant mediator in the humanities. Baron and Kenny article has been cited more than 46,000 times (Ghadi, et al., 2013).

Table 4: Test result mediator (fourth hypothesis)

The fourth hypothesis routes	Impact factor	P
Transformational leadership ← spirituality in the workplace	0.70	***
Spirituality in the workplace ← productivity of human resources	0.78	***
productivity of human resources ← transformational leadership	0.21	0.300

According to Table 4 and decision logic Baron and Kenny due to the significant relationship between the independent variable and the mediator's transformational leadership and spirituality in the workplace and significant relationship with the dependent variable, productivity mediator of human resources on the one hand and no significant relationship between the independent variable on the dependent variable can be claimed. The intermediary role of spirituality in the workplace entirely in the relationship between transformational leadership and human resource efficiency.

#### 4 Conclusion

The aim of this study was to investigate the relation between transformational leadership and productivity of human resources given the role of spirituality in the workplace by the National Iranian Oil Products Distribution. The results suggest it is that transformational leadership and productivity of human resources in the study had significant relationship and on this basis we can say. Once again, the primary responsibility of managers in taking leadership roles in order to provide the necessary conditions for improving the productivity of resources and especially human resources organization as the most important resources and capital has been emphasized. In fact, transformational leaders capable of creating the necessary conditions for the promotion of employee productivity through relationships between staff capabilities with future-oriented goals, directional communication - supporting and conveying a sense of confidence in them. In this context, improves attitudes in the organization. Moreover, increase their desire to extra-role behaviors can also result and antecedents transformational leadership and productivity of human resources, he said. In fact,

transformational leadership with high probability increase productivity platform.

In fact, employees with sense of personal achievement and organizational success and participation in order to achieve performance results will be committed to higher productivity. In accordance with the results of testing indicate no significant relationship transformational leadership and spirituality in the workplace also been approved and the importance of leadership in an atmosphere filled with spirituality has been reaffirmed in the organization. In this context, and based on the results, it can be stated transformational leadership in organizations that create an atmosphere where employees the opportunity to do meaningful work and a sense of integrity of organizational and human values have been effected and in this regard than the traditional style based on interaction style can be significantly more effective in this area. This is likely to feature in the constituent components of transformational leadership on organizational climate, which could pave the way to support the spiritual needs of health care organizations. The results of the study confirmed the significant relationship of spirituality in the workplace and the productivity of human resources and role of Spirituality in the workplace and approved intermediary in the relationship between transformational leadership and human resource efficiency.

Neck, C., & Milliman (1994) as well as attitudes and values based on spirituality not only in the personal lives of employees but also affect their job performance. In fact, to satisfy the spiritual needs of employees in the organization, a more positive attitude toward work and their commitment towards improving the performance goals can be promoted. In other words, human affinity and organizational values and the opportunity to do

meaningful work could eventually create conditions provide fields that serve employees wholeheartedly work and organization and most likely your work done with higher efficiency and on track to meet performance goals set to show more effort than before. Organizations with higher spirituality to make way for the further integration of individual self and professional self-involved in the organization and individual employees in the workplace is integrated with the totality. Naturally, by comparing this case with a condition the person has no opportunity do something meaningful sense of continuity in the organizations something great. There is doubt in human and organizational values can be learned more about the role and the importance of spirituality in the workplace as an important element to improve performance and realized productivity of human resources and the importance of the results of testing this hypothesis ... reflect the research. This research relevant to the investigation undertaken in this context the importance of National Iranian Oil Products Distribution spirituality in the workplace and increase employees' sense of integrity, opportunity to work with the meaning and value of human organization as important factors in improving productivity and human resource performance has stressed than before.

In fact spirituality through different mechanisms can also improve the underlying performance and efficiency of human resources organization. Finally, it can be stated that in addition to positively influence transformational leadership in creating the conditions for improving the efficiency of human resources, it will be necessary context for performance enhancement and productivity of human resources through the promotion of spirituality in the workplace provide more. In fact, leadership, inspiration and motivation to the people work at a higher level and expand the interests of their ability achieve the goals and mission of the organization's staff. On the other hand are able to gain insight induction followers and their beliefs and values shared their spiritual influence and thereby facilitate the achievement of the objectives and desired outcomes.

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#### Primary Paper Section: A

#### Secondary Paper Section: AE

## THE RELATIONSHIP BETWEEN ECONOMIC VALUE ADDED (EVA) WITH EARNINGS PER SHARE AND STOCK PRICE ON TEHRAN STOCK EXCHANGE (CERAMIC, TILE AND CEMENT INDUSTRIES)

<sup>a</sup>ABOOTALEB YAZDANI SHIRI, <sup>b</sup>ABDOLKHALEGH YAZDANI SHIRI

<sup>a</sup>Department of Management, Qeshm Branch, Islamic Azad University, Qeshm, Iran

<sup>b</sup>PhD student in Human Resource Management, Yasouj University

Email: <sup>a</sup>Abootaleb.yazdani1361@gmail.com,

<sup>b</sup>Yazdanishiri.abdolkh@gmail.com

**Abstract:** The aim of this study was to investigate the relationship between economic value added (EVA) with earnings per share and stock price in the companies operating in the cement, ceramic and tile industries and is listed on Tehran Stock Exchange. The respective data for analysis through financial reports and accompanying explanatory notes was collected and extract from Tehran Stock Exchange website and Rahavard Nowin software. To test the hypothesis, after determining the diagnostic method, regression analysis was used. The results showed that the relationship between EVA and earnings per share in the ceramic and tile industry is positive and in the cement industry is negative. The relationship between EVA and stock price in the ceramic and tile industry is significant and positive and in the cement industry is negative.

**Keywords:** EVA, earnings per share, stock price.

### 1 Introduction

Accounting is an information system, that the main users of the major part of this information are shareholders and managers of a firm economy. But management according to responsibilities for different groups of users of financial information, also according to legal requirements or requests for funds by businesses or firms, offer various information for the range of external users of financial information in a specific framework. The accuracy of these reports is confirmed by independent auditors. Financial reports is among the most important products from accounting information systems for different groups of external users of financial information are provided in the framework and the accuracy of these reports is confirmed by independent auditors (Bahrami, 1997).

The profits can be used to evaluate the profitability, ability to pay divisions, forecasting and assessing the risks of investing in the company's future earnings. Therefore, traditional performance evaluation measure is the most important earnings, but this standard is impaired. Earning is able to manipulation using different methods to assess inventory, research and development expenditures, depreciation and reserves. Also, in calculating earnings, capital expenditures order not to be. To overcome these drawbacks, a new measure called economic value added by Stern and Stewart was introduced in 1989 to evaluate the performance.

Economic value added is defined as operating income minus the cost of capital that is used to create it. In measuring performance based on traditional accounting profit, the only costs to be financed through debt, while in the calculation of economic value added, cost of debt and equity financing, both to be considered. The concept of economic value added, in addition to profit, it is also important quality, all profits with the amount of investments made and how much was the cost of capital?

In this study, investigate the economic value added and its relationships to earnings per share and the stock price in companies listed on Tehran Stock Exchange (cement and ceramic- tile industries).

### 2 Statement of the problem, the necessity and importance of research

With the advent of large enterprises and the formation of separation of ownership from management issues because of conflicts of interest between owners and managers, to evaluate

the company's performance and management issues of interest to various segments such as creditors, landlords, government and even the general manager. One purpose of accounting science is to provide information to investors and analysts to help them to assess the organizations and managers performance. Different groups, often with the use of financial ratios based on balance sheet information, benefits and disadvantages bills and statement of cash flows have been prepared, to evaluate the performance of companies. But each category of financial ratios, on the one hand because only one dimension of financial performance to assess (a class of their liquidity ability, teams can assess ability to grow earnings and the other part) and on the other hand the reason for using accounting net profit have misunderstandings. Net profit is a lot of uncertainty, including the possibility of smoothing, the use of estimates in calculating earnings as costs for bad debts, the use of management freely accepted accounting methods. Therefore, the new standard is needs to have fewer restrictions. So, the economic value added because accounts the opportunity cost as a cost in the accounting, different with other accounting standards. EVA examined actual profit companies, i.e. direct costs and indirect debt is considered 'equity (Nikbakht and Moghimi, 2011).

Earnings reflected in the income statement, wealth is created in a specified time interval to shareholders awarded. While the added value represents the wealth that by working groups of shareholders, lenders, employees and the government created a fiscal period is specified. Thus, each of the above groups received their share. This means that the value-added concept is broader than the profit. The company's added value as a measure of performance because calculate the value of the wealth generated by the company in a given period. So it is a measure for management performance. Investors who have a major role in the capital market, when deciding to purchase securities need to know the real value of the company and its stock. So, there are still doubts about this concept that the earnings per share is an appropriate measure to decide shareholders or not or whether economic value added have the relationship with earnings per share? Or even play a fundamental role in investors' decisions or not. Therefore, understanding the relationship between EVA and earnings per share (EPS) is too importance.

The aim of this study is to investigate the relationship between EVA and earnings per share and stock prices in Tehran Stock Exchange, according to the industry type.

#### 2.1 Theoretical Foundations

In this section, the theoretical foundations of economic added value, the earnings per share and the stock price is expressed.

#### 2.2 Earnings per share (EPS)

There are many articles and discussions about profit and EPS. Some researchers investigate the relationship between EPS and dividend per-share (DPS) and stock price. In many countries, the importance of this account is that it is effective as one of the basic criteria in determining stock prices and it has been used widely in the stock assessment models.

EPS are one of the most important financial statistics that are of interest to investors and financial analysts. Earnings per share reflects the potential benefit that income per ordinary share and is often used to evaluate the profitability and risk associated with profit and judge whether the stock price is used. Now, the companies listed in Tehran Stock Exchange, in accordance with the directives of stock, are required to provide information about real and predicted EPS and disclosure of subsequent changes in predictions, but there is not specific accounting standard on how to calculate and report EPS.

According to Irala (2005), EPS is a measurement of the company's per-share performance. Based on this definition, EPS is a performance measurement which assessed based on the value per share profit. Meanwhile, according to Sawir (2001), EPS is a ratio used to determine how much net income per share. For that in its calculations, EPS does not include the cost of capital for the use of debt will lead to a change in EPS and also changes in the risk - as these two factors will changes the company's stock price.

### 2.3 Economic value added (EVA)

Analytical tools EVA, in 1982 introduced by the Institute "Stern and Stewart" in New York ([www.EVA.com](http://www.EVA.com)).

EVA first time to identify, create and presented by Stern and Stewart's to provide consulting services to companies that want a proper level of compensation for managers. Innovators like Stern re-organize practical limit profits were revised accounting. Unlike traditional measures such as EBIT and NOPAT and ..., EVA was based on the firm's profitability.

Companies such as Coca-cola, Diago and SPX implement EVA as a guide to create value for the shareholders. Investment companies such as Management Global Asset and Oppneheimer Capital use from EVA for stock selection, portfolio construction and risk control process.

EVA is a measure that uses for the overall monitoring of value creation by firms. EVA is not strategy, but a way to measure the results.

EVA is the difference between net operating profit after tax and cost of capital.

EVA is evolved version from RI which is deducted all costs, including the opportunity cost of capital (Rau and Satish, 2007).

So, the EVA is different traditional tools to measure the accounting profit, such as EBIT, and EPS because EVA is the total cost of financing.

### 2.4 Stock price

It is believed that stock prices are determined by some macroeconomic variables such as interest rates, currency, and inflation. Several studies investigate the effect of economic forces on stock returns in different countries. For example, arbitrage pricing theory was used by Ross (1976), Chen et al (1986) to illustrate the effect of macroeconomic variables on stock returns in the capital markets in the United States. Their findings showed that industrial production, changes in the risk premium and changes in the term structure have a positive relationship with stock expected returns. However, the relationship between predicted and unpredicted inflation rate with expected stock returns is significant and negative.

Stephen Ross (1976) was presented Arbitrage pricing theory as a substitute for capital asset pricing model. Capital asset pricing model begins with this process that how investors can create an "efficient portfolio". However, Arbitrage pricing theory to look at risks of completely different perspective and measure stems and is not looking for efficient investment portfolios, but it's based on the assumption that stock price adjustment when shareholders are seeking Arbitrage profits. When the income Arbitrage disappears, say stock prices are at equilibrium. Definition of market efficiency in this theory means that there is no Arbitrage opportunity.

Arbitrage pricing theory knows the real return bonds, a function of the economic variables. Unlike the model capital asset pricing model makes it possible to provide more than one systematic risk factor. In the investment portfolio, stock specific risk for per share is not important. Error factor of individual stocks are not dependent, and their correlation coefficient is zero. In these

circumstances, the only risk factor is important and demonstrates that systematic risk can't be deleted, but unsystematic risk is eliminated with diversity in investment.

Chen et al., (1986) believed that the truth lies in the five economic factors and different stocks have different sensitivities to these five factors and these factors are a major part of the source of systemic risk in the portfolio account.

In their view, the five factors are:

Changes in inflation forecasting; 2) unexpected changes in inflation; 3) unexpected changes in industrial production; 4) unexpected changes in the differential between the yield to maturity bonds, junk bonds and preferred securities (bonds risk premium); and 5) unexpected changes in the yield to maturity the difference between long-term and short-term bonds.

Tests done on Arbitrage pricing model showed that the theory of competitive pricing model capital, in overwhelming abducted.

Poon and Taylor (1991), a similar study, Chen et al., (1986) conducted in the UK market. Their results showed no effect of macroeconomic variables on stock returns in the United Kingdom. This conclusion was contrary to the findings of Chen et al in the US stock market. Poon and Taylor believe this is due to their differing conclusions or other macroeconomic factors on stock returns have influenced the UK or the inefficient method has been used by Chen et al., The claim that economic variables such as inflation, exchange rates and stock prices are stimulating and affecting, as a theory has been accepted. However, in the past decade, efforts to study the impact of economic forces theoretically and empirically measure its effects, is done. Dynamic relationship between macroeconomic variables and stock returns has been widely studied. It is based on research on the theory that stock prices reflect the present value of future cash flows of a share (the present value). For this reason, the future cash flows and the expected rate of return is required (discount rate). Therefore, economic factors have on future cash flows and the expected rate of return is affected. Therefore, they can influence the stock prices (Elton and Graber, 1991).

### 3 The research literature

In the recent years, numerous studies have been made on the EVA and its relationship with other accounting variables and parameters. Also, the EPS and stock prices as well, have done extensive research into some of them, some of the researches mentioned in the following:

Heidari (2013) in a study entitled "effect of earnings per share (EPS) on stock price: a case study of Tehran Stock Exchange companies with average earnings per share" have been used for annual data and stock prices of 48 companies' earnings per share during the year 2007 to 2012 in the stock exchange to investigate this relationships. The results suggest that the effect of the earnings per share on the stock price as expected was positive.

Tamimi et al., (2013) in a study entitled "the relationship between changes in market added value with economic value added and return on capital and return on sales" use to assess the performance of listed companies in Tehran Stock Exchange during the period 1380 to 1388, with criteria for return on capital and return on buy and EVA's. For this, first a linear relationship between performance measures and market value added through regression models were evaluated and Pearson correlation coefficients were calculated to compare different criteria. The results show that the correlation between the market value and economic value is more than the correlation of market value and return on capital and return on sales.

Fathi and Shaybeh (2013) did a study entitled "economic value added and comparison with other methods of assessing the performance of companies in market value determination in different industries on Tehran Stock Exchange", the effect of

four variables included two traditional performance criteria (net operating profit after taxes, and the ratio of price to earnings per share) and two performance evaluation criteria (economic value added and free cash flow) the market value of their companies. The population consisted of four companies, industry (cement, automotive, pharmaceutical) listed in the Tehran Stock Exchange during the years 1998-2009. The results showed that the industry type is effective in determining the market value of the company. So can't introduce an accurate factor as the standard criteria for defining the market value of companies in all industries.

Ebrahimi et al., (2009) in a study entitled "the relationship between economic value added (EVA) with stock price and the price earnings (P / E per share) of companies listed on Tehran Stock Exchange", investigate the relationship between EVA and stock prices as well as the relationship between economic value and the price paid earnings per share between 2002 to 2006. The results showed that only in some years there is a relationship between the variables of the study. It is expected that the weak relationship and no relationship between the variables of the study, is due to market inefficiency and political and economic factors in the country. Therefore, the stock market price and its intrinsic value between the economic and financial analysis show this form.

Melbourne (2002) in a study entitled "the search for the best financial performance measure" investigated the correlation between EVA and REVA's criteria and concluded that REVA criteria in predicting the ability to create value, is higher than the standard EVA. In this study, were investigated the significance of EVA and earnings per share. So the relationship between economic value added and net operating profit after tax with the market value has examined. The results indicate that economic value added and net operating profit after tax was, respectively show 31% and 17% of the variation in the market value. As well as the EVA in explaining the changes in the market value operated better than traditional accounting criteria.

In this study, the Stock Exchange information about all companies in the cement industry, ceramic and tile output since the beginning of 2008 until the end of 2012 have been extracted and exploited.

### 3.1 The research hypotheses

According to the arguments, the study's hypotheses can be stated as follows:

H1: There is a significant relationship between the economic value added (EVA) and earnings per share (EPS) in the ceramic and tile industry companies.

H2: There is a significant relationship between the economic value added (EVA) and earnings per share (EPS) in the cement industry companies.

H3: There is a significant relationship between economic value added (EVA) and the stock price (P) in the ceramic and tile industry companies.

H4: There is a significant relationship between economic value added (EVA) and the stock price (P) in the cement industry companies.

H5: There is a significant relationship between earnings per share (EPS) and the stock price (P) in the ceramic and tile industry companies.

H6: There is a significant relationship between earnings per share (EPS) and the stock price (P) in the cement industry companies.

## 4 Research methodology

This research method due to the nature of it is the field and library. The population including of all companies active in the Tehran Stock Exchange in ceramic, tile and cement industries for the period 2008 to 2012 for a 5 years period. The required data for the study were collected from the financial statements and notes of 2008 until 2012 years in examined companies. After collecting data and calculating the main variables using the EXCEL and EVIEWS software, the correlation between EVA, EPS and P (stock price) is calculated by Pearson correlation coefficient. After calculating the Pearson correlation coefficient, significance test is performed.

In the following, the research variables and how they are calculated is shown.

### Economic value added (EVA):

To calculate the economic value operating as follows:

$$EVA = (r - c) \times \text{Capital} \quad (1)$$

In calculating the economic value added, in the above formula, the financial approach is used, because the selective approach in calculating r and modifications necessary to convert accounting profit on NOPAT, equity or assets has an impact on capital.

### Overall investment rate of return (r):

The rate is calculated using the following formula and is based on financial approach:

$$r = \text{NOPAT} / \text{capital} \quad (2)$$

Where NOPAT is Net operating profit after taxes.

The cost of the devaluation of inventories+ (saving tax interest expense - interest expense)+ accounting net profit after tax+ deferred expenses + cost of staff termination benefits+ bad debt expense + cost reduction in value of investments

In calculating NOPAT the tax savings interest expense= interest expense\* effective tax rate

Capital is calculated as follows:

### Capital:

Remember to reduce the value of their investment+ remember the devaluation of inventories+ interest-bearing liabilities+ equities+ (fees payable) debt for deferred costs+ reserve staff termination benefits+ bad debt provision

Interest-bearing liabilities= reception facilities from banks+ pre received sales + bonds payable

### The rate of capital cost (c):

For the calculation of capital cost rate, weighted average capital cost (WACC) is used. Using this method requires identifying the sources of corporate finance and then calculated the cost of each of these resources. Based on the company's balance sheet under test, these companies have used the following resources:

1. interest-bearing debt
- 2 new ordinary shares
3. Other components of equity

The formula weighted average capital cost rate and is calculated as follows:

$$C = W.C \quad (3)$$

$$C = W_1 * C + W_2 * C + W_3 * C + \dots + W_n * C_n$$

$P_1$  = Price in the first year,  $P_2$  = Price at the end year

### The method of calculating earnings per share (EPS):

To calculate EPS, it is required divided the profit (NOPAT) on the weighted average number of the company shares during the year. It the weighted average number of shares means that each share is considered according to the time of year when the spread.

### The method of calculating stock price (P):

Since EVA and EPS related to the performance of a financial year, so P should be chosen to maintain and calculate indicating the price of a stock in the financial year, For this purpose, the average stock price at the beginning and end of the period have to calculate:

$$P = \frac{P_1 + P_2}{2} \quad (4)$$

Table1. Descriptive statistics variables in ceramic and tile industry (2008-2012)

	EVA	EPS	P
Number of observations	50	50	50
The average	-513300.1	287	1771.88
Mean	2173171	291	1502.5
Max	1055850	1328	5021
Minimum	-80482798	-764	209
The standard deviation	13187965	365.98	941.37
Coefficient of skewness	-4.85	-0.103	1.55
Coefficient of kurtosis	28.74	3.92	5.68
Jarque-bera statistics	1576.53 (0.000)	1.85 (0.396)	34.81 (0.000)

Shows the descriptive statistics of the main variables (EVA, EPS, P) in the cement companies in Tehran Stock Exchange for 5 years (2008-2012), which includes 29 companies.

Table2. Descriptive statistics variables in cement industry (2008-2012)

	EVA	EPS	P
Number of observations	145	145	145
The average	11866861	1242.44	5746.34
Mean	8636958	787	3474
Max	91729416	8449	42904
Minimum	-2662154	-81	0
The standard deviation	13681995	1403.7	6650.650
Coefficient of skewness	3.4	2.833	3.08
Coefficient of kurtosis	16.39	12.29	14.08
Jarque-bera statistics	1362.411 (0.000)	717.5 (0.000)	970.84 (0.000)

Statistical hypothesis testing

To investigate the relationship between variables using Pearson's correlation coefficient, should be for each hypothesis, an experiment consisted of a one hypothesis against the null hypothesis. The Pearson correlation coefficient null hypothesis was not always associated and reject the null hypothesis implies the existence of a relationship between variables is statistically significant. The advantage of this method is that indicate the intensity of the relationship and the type of relationship. The positive correlation coefficient means there is a direct correlation between variables and negative correlation coefficient showed a reverse correlation. Whatever, the correlation coefficient distance of zero and closer to the numbers 1 and -1, the correlation (positive or negative) is higher.

Table3. The correlation between EVA and EPS in the ceramic and tile industry (2008-2012)

Hypothesis test	Correlation coefficient	T student test	The minimum level of significance	Test result
Test No. 1	0.672	5.498	0.000	Reject the null hypothesis

In order to do this test and other tests ahead, Pearson correlation coefficient and significance test was performed using software

## 5 Research findings

Variables such as economic value added (EVA), earnings per share (EPS) and stock price (P) have been considered as the main variables. In addition, by using these variables for 10 ceramic and tile companies and 29 cement companies active in Tehran Stock Exchange calculated for the period 2008 to 2012, to test research hypotheses that discussed above. Tables (1) and (2) respectively included descriptive statistics for ceramic and tile industry and the cement industry.

Table1. Shows the descriptive statistics of the main variables (EVA, EPS, P) in the ceramic and tile companies in the Tehran Stock Exchange for 5 years (2008-2012), which include 10 company.

### 5.1 The first hypothesis test:

H0: Pearson correlation coefficient between EVA and EPS in the ceramic and tile industry is zero.

H1: Pearson correlation coefficient between EVA and EPS in the ceramic and tile industry is not zero.

After testing the correlation between EVA and EPS in the ceramic and tile industry in period (2008-2012), results showed in table (3):

EvIEWS. In this case, the correlation coefficient between EVA and EPS in the ceramic and tile industry is equal to 0.672, and t-

statistic equal to 5.498 and the minimum level significance of it is estimated to be equal to zero. Due to the correlation coefficient value is positive, t-statistic is most of the t table (1.96), and least significant level is lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EVA and earnings per share in the ceramic and tile industry is significant and positive.

### 5.2 The second hypothesis test:

Table4. The correlation between EVA and EPS in the cement industry (2008-2012)

Hypothesis test	Correlation coefficient	T student test	The minimum level of significance	Test result
Test No. 2	-0.478	-6.478	0.000	Reject the null hypothesis

In this case, the correlation coefficient between EVA and EPS in the cement industry is equal to -0.478, and t-statistic equal to -6.478 and the minimum level significance of it is estimated to be equal to zero. Due to the correlation coefficient value is negative, t-statistic is most of the t table (1.96), and least significant level is lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EVA and earnings per share in the cement industry is significant and negative.

### 5.3 The third hypothesis test:

Table5. The correlation between EVA and P in the ceramic and tile industry (2008-2012)

Hypothesis test	Correlation coefficient	T student test	The minimum level of significance	Test result
Test No. 3	0.309	2.253	0.029	Reject the null hypothesis

The correlation coefficient between EVA and P in the ceramic and tile industry is equal to 0.309, and t-statistic equal to 2.253 and the minimum level significance of it is estimated to be equal to 0.029. Due to the correlation coefficient value is positive, t-statistic is most of the t table (1.96), and least significant level is lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EVA and P in the ceramic and tile industry is significant and positive.

### 5.4 The fourth hypothesis test:

Table6. The correlation between EVA and P in the cement industry (2008-2012)

Hypothesis test	Correlation coefficient	T student test	The minimum level of significance	Test result
Test No. 4	-0.586	-8.621	0.000	Reject the null hypothesis

In this case, the correlation coefficient between EVA and P in the cement industry is equal to -0.586, and t-statistic equal to -8.621 and the minimum level significance of it is estimated to be equal to zero. Due to the correlation coefficient value is negative, t-statistic is most of the t table (1.96), and least significant level is lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EVA and P in the cement industry is significant and negative.

### 5.5 The fifth hypothesis test:

Table7. The correlation between EPS and P in the ceramic and tile industry (2008-2012)

Hypothesis test	Correlation coefficient	T student test	The minimum level of significance	Test result
Test No. 5	0.549	4.551	0.000	Reject the null hypothesis

The correlation coefficient between EPS and P in the ceramic and tile industry is equal to 0.549, and t-statistic equal to 4.551 and the minimum level significance of it is estimated to be equal to 0.000. Due to the correlation coefficient value is positive, t-statistic is most of the t table (1.96), and least significant level is

H0: Pearson correlation coefficient between EVA and EPS in the cement industry is zero.

H1: Pearson correlation coefficient between EVA and EPS in the cement industry is not zero.

After testing the correlation between EVA and EPS in the cement industry in period (2008-2012), results showed in Table (4):

H0: Pearson correlation coefficient between EVA and P in the ceramic and tile industry is zero.

H1: Pearson correlation coefficient between EVA and P in the ceramic and tile industry is not zero.

After testing the correlation between EVA and P in the ceramic and tile industry in period (2008-2012), results showed in Table (5):

H0: Pearson correlation coefficient between EVA and P in the cement industry is zero.

H1: Pearson correlation coefficient between EVA and P in the cement industry is not zero.

After testing the correlation between EVA and P in the cement industry in period (2008-2012), results showed in Table (6):

H0: Pearson correlation coefficient between EPS and P in the ceramic and tile industry is zero.

H1: Pearson correlation coefficient between EPS and P in the ceramic and tile industry is not zero.

After testing the correlation between EPS and P in the ceramic and tile industry in period (2008-2012), results showed in Table (7):

lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EPS and P in the ceramic and tile industry is significant and positive.

### 5.6 The sixth hypothesis test

H0: Pearson correlation coefficient between EPS and P in the cement industry is zero.

H1: Pearson correlation coefficient between EPS and P in the cement industry is not zero.

After testing the correlation between EPS and P in the cement industry in period (2008-2012), results showed in Table (8):

Table8. The correlation between EPS and P in the cement industry (2008-2012)

Hypothesis test	correlation coefficient	t Student test	The minimum level of significance	Test result
Test No. 6	0.832	17.896	0.000	Reject the null hypothesis

The correlation coefficient between EPS and P in the cement industry is equal to 0.832, and t-statistic equal to 17.896 and the minimum level significance of it is estimated to be equal to 0.000. Due to the correlation coefficient value is positive, t-statistic is most of the t table (1.96), and least significant level is lower 0.05, the null hypothesis is rejected and it was concluded that the relationship between EPS and P in the cement industry is significant and positive.

### 6 Conclusion

The aim of this study is to investigate the relationship between EVA and earnings per share and stock prices in Tehran Stock Exchange, according to industry type (the cement, ceramic and tile industries).

The results show that the relationship between EVA and earnings per share in the ceramic and tile industry is significant and positive and in the cement industry is significant and negative. Due to the fact that the absolute value of the correlation coefficient in the ceramic and tile industry is most of the cement industry, it can be concluded that the relationship between two variables in the ceramic and tile industry is more severe.

The relationship between EVA and stock prices in the ceramic and tile industry is significant and positive and in the cement industry is significant and negative. Since, the absolute value of the correlation coefficient in the cement industry is most of the ceramic and tile industry, conclude that the relationship between EVA and stock price variables in the cement industry is more severe.

The relationship between stock price and earnings per share in both cement and ceramic and tile industry is significant and positive. Due to the fact that the correlation in the cement industry is more than the ceramic and tile industry, it can be argued that the relationship between stock price and earnings per share in the cement industry is more severe.

It was observed that in both ceramic and tile and cement industry, the absolute value of the correlation coefficient between earnings per share and stock price is more than the absolute value of the correlation coefficient between EVA and stock price. So, as a result, earnings per share variable than economic value added variable have closer relationship with the stock price.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## OWNERSHIP RESTRICTIONS IN THE LAWS OF IRAN WITH AN EMPHASIS ON CULTURAL HERITAGE LAWS

<sup>a</sup>AZRA EBRAHIMI, <sup>b</sup>MOHSEN IRANMANESH, <sup>c</sup>SEYED ABBAS JAZAERI

<sup>a</sup>MA student, Islamic Azad University, Faculty of Law Branch, Kish Island, Iran

<sup>b</sup>PHD, Islamic Azad University, Faculty of Law Branch, Kish Island, Iran,

<sup>c</sup>PHD, Islamic Azad University, Faculty of Law Branch, Shareh-kord islamicazad university, Iran,

Email: <sup>a</sup>md.ciwic@gmail.com, <sup>b</sup>Iranmanesh1970@gmail.com, <sup>c</sup>info@drjazaeri.com

Abstract. Although, according to the general rules of civil law, ownership is known as an inviolable and inalienable legal principle, but it is sometimes restricted in various ways, and sometimes this principle is generally denied by the legislator. Cultural heritage principles are considered one of the means of restriction and dispossession. Provisions of the cultural heritage, because of direct contact with the public rights of individuals, are effective in private property of owners in two ways. In some cases, these rules will lead to the dispossession that the general legal principles emphasize on establishing the ownership of persons in that way, and in some cases also, the rules sometimes restrict the ownership of the private owners. These restrictions limit the scope of the ownership dominance in many ways.

Keywords: ownership, dispossession, ownership restriction, cultural heritage laws

### 1 Introduction

Cultural heritage is a set of movable and immovable cultural works and properties left from the past which is very worthwhile. An important part of these works is possessed by individuals as their owner that they may either inherited as a legacy from their fathers or have possessed them through discovery. Today, preserving these works due to their cultural aspects, is one of the concern of the government. We face with two kinds of rules in the field of cultural heritage in Iran law: first category includes a set of domestic rules and regulations related to cultural heritage. Article 1 of the Law on Cultural Heritage Act of 1985 and Paragraph 12 of Article 3 of the Statute of the Cultural Heritage Organization considered one of the essential tasks of the organization as registration of movable and immovable properties which should be placed in the national index. Second category is part of the international regulations that should be respected and considered by the states as Iran joined the rules or due to interaction and international works (Emami, 2004; Bariklou, 2006).

The rules, which are legislated and applied mainly with an emphasis on the general aspect of cultural heritage have serious conflicts with the general rules relating to ownership including the jurisprudential and religious rule of Absolute Legal power of the Owner to Exercise Control Over property which is a jurisprudential certainty which is emphasized in Articles 22 and 47 of the constitution, and sometimes it is ignored under the ownership provision which is created under the ownership jurisprudential and legal generalities (such as ownership of the treasure) and sometimes an owner who under legal generalities and Absolute Legal power of the Owner to Exercise Control Over property, has the right to seize the property and prevent the transferring acts (Jafari Langroodi, 2001; Hayati, 2010).

Thus, this paper which is gathered using desk and descriptive methods, will first explain the concept of ownership and its elements, then discuss whether or not ownership can be restricted and finally it will seek to answer the main research question, "what is the restriction and dispossession in cultural heritage rules?"

### 2 Concept of ownership

Ownership in Persian is an Arabic word from fictitious infinitive and it is taken from the word MELK. Some have stated its literal

meaning as being owner and some to own etc. Farhikhte in his dictionary defines ownership as an adjective that is achieved based on being owner. In other words, ownership means to have, own and being eligible. Addressing the precise meaning of ownership and its nature is useless. The Civil Code also doesn't define ownership, but it just mentioned some of its features.

What is important is to understand its common concept and it is a sense that everyone understand it and use it in their conversations: "having" which is of course a universal meaning indicating a traditional interest between a (natural or legal) person and an object.

In the Iranian legal system, ownership right is not defined in laws, however, ownership assurance is greatly considered in the constitution. In addition to the special status in the constitution, legal rules also guarantee it. In accordance with articles 15, 16 and 17 of constitutional amendments to the constitution, ownership is respected and protected, and the general principle in the third chapter of the Islamic Republic constitution guarantees people's ownership in the general and privative context, is Article 22. In addition, Articles 40, 46 and 47 of the constitution guarantees ownership. Civil law does not provide a definition of ownership as well, but it spoke about its qualities and effects and limits in some Articles such as 30, 38, 130 and 131.

The area of ownership is widened in line with global developments and technology trends, so that intellectual property is now raised that was quite unfamiliar and unimaginable by a few decades ago. That's why the basis for ownership needs a proper definition to include all properties and assets even immaterial ones. In other words, it should be said that "anything other than material possessions includes intellectual property."

As noted above, without providing a definition of property, civil law at the beginning of the first book states that property has two types: movable and immovable which is given in Article 11 of the Civil Code. In other laws, there is no definition of property; as stated this may be because the concept of property is clear and in other words it is an obvious concept; but this seemingly obvious concept has raised debates among the scientific dialogue common in the faculties of law, so that one of the most important practical disputes among Iranian lawyers can be seen in the definition of property (Deilami, 2005; Safaei, 2014). Despite the silence of Iranian law on ownership, it can be stated that "ownership consists of entrusting commitment and allocation of a material or spiritual thing, an object or interest, financial or non-financial, movable or immovable, absolutely and authentically to the certain person or nation."

#### 2.1 Three elements of ownership

**Like French law, Iranian law has recognized three elements (application, exploitation, right to possess the property) regarding the ownership.**

Right to application means that the owner is entitled to use and benefit from his property without intermediary and others have no right to stop this right, this is explicitly expressed in Article 30 of the Civil Code (Katoozian, 2005 and 2015). The right to application is the most tangible direct right that the owner has toward the owned object. But sometimes using this property is not tangibly possible. It should be noted that the impossibility of using or not using the property, won't stop him from owning.

Right to exploit means the right to receive the fruit and result of the property, because the interests are created in the property of owner. This allows the owner to receive the result of his property. The effect of this right is that the interest can be used only with the owner's will.

The right to possess the property; owner can do all financial and legal acts about the property (Mohammadi, 1996; Mir Damad, 2001). That is, the right affirmatively means that the owner can do financial acts like, consuming the property or removing it or by legal acts such as: donation, peace or selling, remove the property of his ownership. And privatively he has the right not to accept the destruction of his property or not to be satisfied to sell his property. Of course, this discretion is limited and sometimes for various reasons, some limitations are created.

## 2.2 Ownership features

Ownership is the most complete financial right because unlike other financial rights that the owner of a right has the authority for a certain seizure, in ownership right, the owner will have the authority for a variety of possessions. In Article 30 Civil Code, the right of ownership is referred to a right whose owner can do all sort of possessions in the belonging property. Owner possessions in servient estate can be divided into three types: use, benefit and transfer of property, but in old Rome Rights and from the perspective of some French lawyer, it has attributes like being absolute, being exclusive, and perpetuity.

The absoluteness of ownership is clearly manifested in Iranian civil law. In accordance with Article 30 of the Civil Code, "every owner has the right to seize and benefit to his own property, except in cases where the law has exceptions." It is understood from the article that basically owner has the right of any seizure in his property and exceptions to this rule must be raised in the rules. One of these exceptions are Articles 40, 44 and 47 of constitution. According to the principles of ownership, it must be legitimate, in accordance with the law and causes the country's economy promotion, also the owner should not use the ownership right to harm others. So it can be concluded that ownership right is respected to the extent that it does not conflict with the law. Finally the principle of owner free boundary is that the ownership would not harm the society (land speculation, monopoly, etc.).

The absoluteness of property and that the owner can seize his possessions is indicative of its exclusiveness. The owner is entitled to do any sort of seizure in his property and in turn prevents the profit of others. Ownership is an individual rights that the law protects the right against aggregation of others. As a result of this issue, Article 31 of the Civil Code states that: "No property cannot remove from the seizure of its owner except in accordance with law". Among the exceptions entered to the description of property, we can refer to the public interests and private contracts which thereby ownership loses its monopolistic aspect.

Another feature of the ownership right is its perpetuity, i.e. it is not limited to a certain time. This means when a person owns something, as long as he is owner can use it without being bound to a specific time. One of the differences of owner with all people who can use and benefit from the property on behalf of him, is that the use and operation of the owner is not bound to a certain time but other people can benefit from it in a certain time. So, ownership is a perpetual right and perpetuity of ownership doesn't mean that the owner cannot transfer it to another person or heirs cannot own it if the owner is deceased, even in cases where the ownership is not apparently permanent like tenant ownership of the leased property interests, is in fact the perpetual ownership of the owner to the property interests which is granted to the tenant for a limited period. So, what is meant by perpetuity is not eternity, but is that time and duration of ownership of the owner is not limited to a specific period, unlike other financial rights which normally is limited to a certain time.

## 3 The nature of restriction and deprivation of ownership rights

About the ownership restriction, we can consider restriction as part of the government's unilateral action for the public interest

despite the everyday rules and given the increasing development of social thought and its reflection on rights and increased government involvement in the private relationships and rights, especially about the owner authority and scope of the private ownership.

These restrictions will not result in dispossession but restrict part of the ownership rights. For example, prey belongs to the hunter according to jurisprudential law, but the government apply some restrictions for the ownership like hunting license, hunting time, hunting place and type of hunting. If the restrictions are observed, prey will belong to the hunter. The owners will have some restrictions on construction if they are placed in the scope of some national monuments and buildings (Hashemi & Taghizadeh, 2012; Esfahani, 1997).

According to what was said recently, ownership is a right in which durability, applicability and exclusive nature are the main conditions forming the right. However, it may be restricted or withdrawn based on legislative frameworks and some interests related to the public order. According to some "dispossession for public interests, is also a kind of transfer of ownership."

It is worth mentioning the term dispossession literally means abstraction, robbing and coercive (forced) taking that its idiomatic meaning is very close to the term "forced taking" or compulsory possession.

Since the ownership is considered as a permanent right by which one can assign the seizure of his property to himself within the laws of [exceptions] and use all its benefits, so we can say that dispossession means coercive removal of property or exploration or its compulsory acquisition and leads to ignoring the ownership rights of the owner. If it is legally licensed, it is legitimate, otherwise it is unlawful and usurpingly.

Articles 30 and 31 of the Civil Code also while expressing the owner's ownership right show that the owner may be deprived of these rights only through the rule of law in some cases.

In Article 17 of the Universal Declaration of Human Rights of 1948, presence of ownership was recognized as one of the human rights and was considered as a guarantee against arbitrary deprivation of property, however, in accordance with Article 3 of the Declaration, ownership can be restricted for general needs, in accordance with fair rules and by paying fair compensation.

### 3.1 Methods of ownership restriction in Iranian law

Methods of restriction and dispossession are different in the Iranian legal system and based on the rules governing the different legal systems is different in various manifestations. Restriction and dispossession may take place based on a contract. For example, a person with commitments to sell his property during a contract, has deprived his ownership over a property and transferred it to another person or some contracts may cause restrictions on the use and possession of the property that time sharing contracts can be mentioned in this connection.

In such restrictions which are generally bilateral and are created based on the decision of the parties to the contract that sale and lease contracts or partnership are among them, time is somehow the criterion for ownership or how to profit is intended.

In another type of contractual restrictions which are also called unilateral administrative contracts, a person ownership is restricted or deprived using the law and the owner will be forced to accept the contract for a minimum use of the property, such as restrictions on property development in civil projects.

Another method of dispossession and restrictions in Iran's legal system is based on the law. In this type of restriction and dispossession, governments restrict properties by nationalization or confiscation of property or approving urban development projects or housing.

In general government try dispossession for the public interest or legal criteria. Given the public interests, it is more like a political rather than legal theory. Thus, the area of dispossession gets wider day by day and this is also due to the diversity of government functions and increased legal persons and public law that benefit from dispossession.

What is obvious is that it is not possible to use the property right indefinitely and dispossession is in fact a privilege that the government protects the public interest through it.

Nationalization that means the permanent transfer of private property and assets to public ownership which is done in pursuit of some political and economic objectives in return for compensation which finally, government is the successor to the original owner.

Nationalization of property is always associated with loss to the persons, in this action it is assumed that using sovereignty, government attempt restriction and deprivation to secure the public interest and to comply with public interest.

For example, to prevent inappropriate use and destruction of forests and rangelands, pursuant to Act 1924 of the government as well as the enactment of the Forest Act of 1942, and also forest nationalization law passed in 1962, government tried nationalization of forests and rangelands and applied some restrictions for allies and thereby caused the dispossession of some of them.

In another type of restriction and dispossession, the government attempted to confiscate property. Confiscation of property is: "an operation whereby government unilaterally transfers property of natural and legal persons to itself to meet exceptional and temporary needs". Confiscation includes, "permanent seizure of private property without compensation." That's why the most severe form of dispossession is done by the state. It is worth mentioning that the confiscation of property is considered as a source of financing for the government.

### 3.2 Ownership lack of restriction based on the general principles of civil rights

Ownership in civil law means the legal relationship between the human and the property. By virtue of this relationship, one has absolute authority and full ownership to his property. This prevents the seizure of ownership by others. Based on the principle of despotic dominion in Iran civil law, which has confirmed the full authority of owner in profit and seizure of his property, the effect of ownership is on the one hand positive and on the other hand negative. In fact, the owner has the right for any dispossession of his property positively and nobody has the right to seize the right negatively (Panahi, 2015; Ninam, 2005).

Articles 30 and 31 of the Civil Code explicitly stated the right to seizure and benefit of owner to his property and the protection of property rights. In the law of Islamic Republic of Iran, Articles 46 and 47 of the constitution refer to the rule in another way. Some lawyers believe that the ownership is absolute. Because under Article 30 of the Civil Code, "the owner has the right for any manipulation in his property except in cases where the law has exceptions." According to Articles 40, 22, 46 and 47 of the Islamic Republic of Iran's constitution and Articles 15, 16 and 17 of constitutional amendments to the constitution, ownership is respected and protected. In the case of immovable property, ownership is absolute, except in cases where the law has exceptions. Of course, absoluteness of ownership is allocated with things such as losses to others.

In contrast, other legal experts believe that in the current law, exceptions to absolute rule is so great that we can hardly speak of ownership rights. Realism requires to indicate the term law in its nature rather than using the ownership right and it is said "it is a right which gives the owner to benefit from or possess his property in accordance with the laws."

However the "Principle of despotic dominion" is mentioned with great respect, but the principle doesn't have the former concept. So in principle 44 of Constitution, it is said about ownership constraints that "Ownership in this three parts is protected by the Islamic Republic's law, as far as is consistent with other principles in this chapter and is not outside the scope of Islamic laws and results in the country's economic growth and prosperity and does not harm society". In the interpretation of this principle, it is said that ownership is not the natural rights of human personality, but a means to protect the public interest and the last frontier of freedom for owner is that it would not harm society.

In Islam, ownership is never absolute and there is no sign of absolute right of ownership. Religious morality knows wealth as God trust to human and the principle of "no harm" rules over the "principle of despotic dominion". Some legal experts believe in Islamic jurisprudence based on "principle of despotic dominion" ownership of some monuments is equal to absolute ownership in Roman law and the owner has the right to seize on his property. Some also believe that exceptions to Article 30 of the Civil Code, is highly developed in proportion to the economic and social developments, and abundance of these laws has raised the famous issue of maximum appropriation.

In respect of ownership on cultural properties, specifically treasure in Iranian law, it must also be stated that overall, in this context, we are faced with two kinds of attitudes by the legislature. First, treasures which are not considered national monuments and antiquities, that according to Article 173 of the Civil Code: "It is a property buried in a building or ground and is found by chance." Iran's law in this part respects the private ownership and according to civil law, if the owner is not known or found in permissible lands, it belongs to the finder. Second: treasures which are considered as a part of national monuments and antiques (treasure) that under the single article of bill in 1979 which is about prevention of measures done to discover antiques, treasures that they are at least a hundred years old, are considered antiques and national monuments.

Now given that, on the one hand, according to some legal experts and civil laws and constitution of Iran, the absolute ownership is exclusive and permanent and on the other hand, in some cases, such as cultural heritage laws, ownership is limited, in the following we will discuss the cases of restriction and dispossession in cultural heritage laws.

### 4 Restriction and dispossession in cultural heritage laws

Cultural heritage is a worthwhile treasure, containing thousands of buildings and hills, historical sites and hundreds of thousands of movable and immovable historical works that should be protected competently and given to the future generations. Therefore, in areas related to cultural - historical heritages, there are protection regulations such as Articles 1, 3, 5, 6 and 10, about preserving national monuments act of 3 November 1930, Single Article of National Heritage Act enacted in October 1973, Article 1 and statutes of the country's cultural heritage, single article of the law concerning the Cultural Heritage Organization Act of 1985. Also on the implementation of laws related to historical - cultural monuments that have regulations and protection conditions and regulations in the field of records and privacy of historical monuments, and clearly explain the method of administrative intervention in monuments or their privacy (about monuments), we can refer to Articles 1, 2, 3, 4, 7, 8, 9 of executive regulations to Preserve National Monuments Act - passed in 1932 of the Council of Ministers; sample of privacy and protection regulations of buildings, complexes and hills in historic sites, sample of public safety regulations, and sample of specific privacy laws and regulations (grade one, grade two). Given that the rules and regulations as well as regulations for protection of monuments regarding the restriction and dispossession of cultural heritage is different, in this review, we try to separate these two by an example and provide further clarification on these issues.

#### 4.1 Laws and regulations governing the ownership restriction

According to the rules relating to Preservation of National Monuments, the limitations arising from the implementation of protective rules of historical - cultural monuments that may be raised for their owners can be divided into two parts: moveable and immovable cultural - historical monuments that at first we analyze the limitations arising from the rules of Preservation of National Monuments regarding immovable monuments.

Regarding the limitations arising from immovable monuments protection regulations, it must be stated that according to relevant provisions of law relating to Preserving National Monuments, enacted in November 130 and Single Article of registration of Works approved in November 1973, the country's cultural heritage and the Statute of the Cultural Heritage Organization, works registered in the national index, are protected and supervised by the country's cultural heritage organization and are subject to protection regulations specified in the rules for monuments. So, considering the fact that after registration, any action that leads to the destruction of or damage to the monument, is prohibited. Therefore, registering a work in the national index also causes a limitation in performing some interventions in monuments. The most important of them is ban, destruction and renewal of immovable monuments.

In relation to ownership, ownership of monuments according to Article 3 and 5 of the Act relating to Preservation of National Monuments Act 1930 and Article 7 of the rules of procedure of the latter regulation, dispossession will not be done in monuments and the owner of the monument preserves the right of ownership or possession of property and only through registration of the monument in the national index and rules related to it, some limitations will be applied for owners through protective criteria, after recording the monuments by cultural heritage organization.

According to Article 12 of the Statute of the Cultural Heritage Organization, determining the Privacy and Criteria for Protection of Privacy of monuments registered in the national index is done by the Cultural Heritage Organization that based on the criteria regarding interventions and measures in areas of privacy of monuments which include areas surrounding historic monuments, some limitations, such as, restrictions in the height of construction in adjacent plaque or surrounding the immovable monuments or restrictions on the use of some materials in architectural design or building façade around the immovable monuments will be applied that by applying these rules and regulations, some property owners located in the historical monuments will face some restrictions.

In some cases, depending on the type of work, field size, height, etc., monument privacy is rated to grade 1, 2, ... by the Cultural Heritage Organization, and specific protective criteria will be separately defined and notified for each of the privacies, and in such cases the limits established for property owners differ in the privacy of Grade 1 and Grade 2, etc.

For example; determining the privacy of Ramsar cultural - historical complex that construction in the privacy grade 2 is strictly prohibited. Or privacy restriction for Baq Ferdows cultural heritage where the property is located, in the vicinity of this monument, construction over 3 floors and a height of 9 meters is prohibited.

About the limits arising from movable monument protection regulations, it should also be noted that based on relevant cases from statute law of Cultural Heritage Organization and the law of Preservation of National Monuments Act 1930, law for forming Cultural Heritage Organization and rules of procedure of the latter law, registration of historical monuments on the list of movable monuments also results in limitation for their owners.

According to Article 9 of the law relating to Preservation of National Monuments Act 1930 and Articles 15 and 16 of the rules of procedure of foregoing law, passed in 1932 by registering the monument in movable property, any transfer, sale and repair will be limited for the owner and the owner without the knowledge of the cultural heritage organization and receiving permission from the organization will not have the right to transfer, sell or repair the movable property registered in the national index.

#### 4.2 Laws and regulations supervising dispossession

According to paragraph 12 of Article 3 of the Statute of the Cultural Heritage Organization and Article 9 of the rules of procedure relating to Preservation of National Monuments Act, if a non-standing property is located in the hills or historical sites registered in the national index, due to the prohibition of construction in the area of monuments registered in the national index, building permits will be withdrawn from the owner. And if a property located in the hills or historical site registered in the national index, with a non-agricultural usage, is authorized to construct such as residential, commercial, service uses and so on, permission for the construction will be withdrawn from owner. In fact, the owner cannot benefit from his property interests, because he is not permitted to construct and by that ban, the monetary value of the property will be lost. Despite the fact that the owner can transfer or sell his property by informing and asking authorization from the Cultural Heritage Organization, but no buyer is willing to buy a property wherein there is no possibility of construction or any other intervention and thus, benefiting from the property is denied for the owner. The only way facing the owners of such properties is to transfer or sell it to the cultural heritage organization and due to lack of credit and other financial issues, this may take years and the owner will be still deprived of his property interests.

In other words, despite the rules for preserving ownership in monuments that have been previously discussed, by creating such conditions for the owners of these properties, we can consider a form of dispossession of the owner.

#### 4.3 Factors limiting private ownership in cultural heritage

**Factors like government, time and registering the work limit private property of people in property and cultural heritage. Government limits the private ownership in three ways:**

*State ownership: Anfal (property truly belonging to Prophet Mohammad or to any of the imam) is state-owned, so imposing conditions and requirements by the government on how to exploit it, is legally legitimate and follows the general reasons of ownership.*

*Public ownership: supervision of such ownership of cultural heritage is at disposal of the state and hence the content of the preceding paragraph is true about it. The difference is that here the interest of the ward should be observed. The owner of this kind of cultural heritage are all people. The government is obliged to observe interests of people in policy-making on how to take advantage of this property. In this case, restrictions of this type caused by the government, will have legitimacy. The legitimacy of government decisions in this sector, is a function of leadership general arguments.*

*Private property and endowment: The government can impose obligations on private ownership of cultural – historical monuments. So here specifically no separate discussion than what has already been said, seems to be raised.*

Time lapse is a legal interpretation that has found its way to our law from the West Legal Dictionary. Time lapse, in French law plays a role in two ways: acquisitive and landing place, so it is a way for the acquisition or acquittal, meaning that over a certain time, the legislator consider the owner rightful to own his property, and considers lack of main owner complaints a reason

for waiver or not being rightful. Likewise, he considers the debtor discharged and non-complaint of creditor in a certain period as a sign of waiver of right.

Since Islamic law doesn't consider time lapse in this form legitimate, former legislator considered time lapse as indicating cognizance, without any intervention in right and current legislator has accepted time lapse just in case of the preventive punishments that is considered a state constitute; punishment for crimes which are deemed crime by the government and are not crime in the principles of religion. And non-deterrent punishments, time lapse is not even accepted as cognizance. In Article 1039 of the Civil Code and Article 731 of the former civil procedures, cognizance, had been subject to the filing of it the legal deadline. The Guardian Council in Theory 7257 dated 16.02.1984 considers lack of cognizance after a legal period against the religious boundaries and voted to revocation of the cases. Therefore, as a general legal rule, time lapse has no place to prove or waive the right.

Now the question is raised whether contrary to the requirements of this public rule, cultural heritage has a special feature which can consider the time lapse as the reasons and causes of creating or transferring the right about the manifestations of cultural heritage? This means that when a cultural heritage is in the possession of a person, and the government has decided to take it for a long time and that person has not raised a claim against it, the government has the right, based on time lapse, to possess a monument?

It seems that if the mentioned monument is not so important that state ownership on it can be explained based on what is given in this chapter to justify the qualification of government for possessing private ownership to cultural works, time lapse will not be qualified per se to correct the government ownership. So, the object still remains in the possession of the person and he can set lawsuit and restore the right against the government.

Obviously, contrary is inconceivable, so that an inherited monument that is owned by the government, is in the hand of others for a long time and by recourse to time lapse, he can set lawsuit against the government over the acquisition of the object. Of course, we may state a reasonable meaning for this assumption, in this way that sometimes the inherited monument is among *Mobahat* (things without a known owner that may be possessed by any private citizen under paragraph 92 of the Civil Law of Iran) or *Anfal*. In the discussion of ownership we said that *Anfal* belongs to the government and based on generalities and predications indicating the *Anfal* ownership of possession or reclamation, if an inherited instance is acquired by a person and the government does not protest in a long time, if silence of government means permission for ownership, based on predications, it can be said that this person is the owner of the object. Of course, this is in the case that in the discussion of *Anfal*, we have accepted the evidence of ownership by means of restoration; but we raised a contrary debate and said that the requirement for evidences only permits individuals to take advantage of the *Anfal* and its ownership is dedicated to the state and restoration won't cause the right of ownership. This means that government ownership over *Anfal* is not a right to spoil it or his silence discoverer his satisfaction for the property of individuals; so the government cannot transfer *Anfal* to others, and at least it is suspected and as the first principle in trading, transferring *Anfal* will not be enforced. But the enjoyment of the *Anfal* is so sure that evidence proves it, so despite the evidence, we suffice the same amount of the principle.

The result is that time lapse doesn't create a right against people in private property rights of cultural heritage – the ownership that is not placed in custody or supervision of the government; as it has not considered a right by possession or recovery against the government and in favor of entities.

In Iran, there are many movable and immovable antiquities. Although each of these works are valuable, but their frequency

on the one hand and limited resources on the other hand, causes the government to act selective based on some criteria and protect works that have greater priority to maintain. One of the tools of the government to stabilize the selected items and notifying it to the government institutions and people is registration of the monument. Government does it by registering the works which have criteria for priorities to be classified as historical monuments, so the registration of work has an instrumental role. Through recording the work, government supports the selected monuments by creating restrictions for the owners; in the sense that if these works were not recorded, just government general restrictions like declaring the monument to the state would be applied to them, but now they have registered, they have more restrictions. The nature of registering a work is not hampered legally, but the consequences that appear following it eliminating the owner authority or custodian of the endowment, is contrary to the demands of the law.

## 5 Conclusions

Property is a right that someone has to a property (whether movable or immovable) that belongs to him and he has the right to any seizure and use of it. So they have three features like: being absolute, perpetuity and exclusivity. The ownership right is an inviolable right because of the privilege of owner than others in a property, and legislator should protect it to maintain social order. Under Iranian law, especially civil law and constitution, although there is no definition for this concept, but both laws have protected the ownership right and have guaranteed it. However, people private ownership is not absolute in all kind of properties and, in some cases including the historical-cultural property, it may be restricted or denied.

Ownership restriction means creating some restrictions for the owner to use the property without leaving ownership from its private status and based on Article 44 of the Iranian constitution, the preference of public law for economic growth and development has accepted private ownership and insists that in some cases, we can apply some restrictions to some properties. Preserving public interest is one of the main reasons to limit ownership right or in some cases it can lead to foreclosure; especially regarding cultural property that the property belongs to all nations and no one can claim ownership toward them.

In the Law of Islamic Republic of Iran, on the one hand, private ownership of people is respected and guaranteed and on the other hand, in some special laws, including statutes pertaining to Cultural Heritage in 1989, the Law to Preserve National Monuments Act 1930, the Single Article of Law concerning Registration of National Monument in 1974, and rules of procedure to preserve National monuments Act 1932, private ownership in the historical-cultural properties is restricted and in some cases has been negated.

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## EFFECT OF MANAGERIAL OVERCONFIDENCE ON THE INFORMATION ASYMMETRY OF COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

<sup>a</sup>ABOLFAZL GHADIRI MOGHADAM, <sup>b</sup>SHIVA SADAT MIRRAJAEI, <sup>c</sup>TAHEREH SADAT DORCHEI, <sup>d</sup>ATIEH TAHMASEBI, <sup>e</sup>MASOUMEH KESHAVERZ

<sup>a</sup>Assistant Professor, Mashhad Branch, Islamic Azad University, Mashah, Iran.

<sup>b,c,d,e</sup>M.A Student, Department of Accounting, Mashhad Branch, Islamic Azad University, Mashah, Iran.

Email: <sup>a</sup>abolfazl.gh.mogh11@yahoo.com,

<sup>b</sup>shiva.sadat1986@ymail.com, <sup>c</sup>tah.sadat.d21@yahoo.com

<sup>d</sup>atieh.tah.833@gmail.com,

<sup>e</sup>masoumeh.keshavarz.1988@gmail.com

**Abstract.** Managerial overconfidence causes them to show better performance while they terminate project whose net present value is negative and postpone bad news. In this regard, present value is to assess the effect of managerial overconfidence on the information asymmetry in 84 companies listed in Tehran Stock Exchange from 2009 to 2014. Therefore, extracted information is tested and analyzed by means of descriptive statistics and pattern of data panel. The achieved results suggest that managerial overconfidence causes information asymmetry to increase in investment market.

**Key Words:** managerial overconfidence, information asymmetry, earnings per share (EPS)

### 1 Introduction

The most important phenomenon that is discussed among executives about self-deception is overconfidence. There are many evidences, showing that many people trust their knowledge and capabilities more than what they have. Usually prediction of probability is too extravagant; in addition, the ability of prediction is low, or evidence and document are not clear. Managers and specialists have overconfidence than ordinary people, so the overconfidence causes managers to seek many ways in order to justify the results of their decisions, accordingly managers can gain appreciation and respect of other people. The managerial overconfidence causes them either to terminate project whose net present value is negative or to postpone bad news in order to show their good performance (Malmendier et al., 2011). Overconfidence is based on the theory of self-deception. This theory deals with a mechanism in which people try to gain respect by means of justifying the past decision (Khoshtinat & Nadighomi, 2009). The researches show that executives with high overconfidence put companies at risk of collapse more than managers with low overconfidence (Bonkim et al, 2013). The financial success and past imagery decision increase the confidence of manager and lead them to evaluate the conception and prediction, while the losses do not decrease the managerial overconfidence; because managers are inclined to attribute their failure to bad luck (Adam et al., 2012). The base of participants' decisions in securities markets is information that is published by stock exchange, securities issuers and active intermediaries in this market. Effective utilization of such information or accurate decision in securities market is possible when given information is proper (timely), relevant, important, complete, and intelligible. On the other hand, how and which information must be achieved are very important. If information is transferred among people asymmetrically and unequally, it can result in different outcomes about single subject. Asymmetric market is important subject, whose importance continually increases by complexity of product and trading mechanism, needs more attention and presentation of new solution by market players including sellers, buyers, managers, creditors, and government. Information asymmetry has undesirable outcomes such as reduction of market efficiency, increase of market cost, weakness of market, low liquidity, and finally reduction of profit from transaction of investment market (Khadamipoor & Ghadiri, 1389). Main role of accounting information is to provide necessary field for optimal resource allocation. After recent financial scandals, investors trust to and rely on the system of financial report and quality of profit emerges as main factor to determine the validity and

reliability of reported figures. Therefore, investors, managers, legislatures and accounting standards steering committee are interested in determination of accounting information quality and its results (Rahimian et al., 2009). Inappropriate selection is first information asymmetry that occurs when one or more parties have more competitive information than other parties. This issue gives policymakers and lenders necessary information to pay attention to information integration applied among users of financial statements. "Moral hazard" is second factor of information asymmetry according to which each of parties in actual or potential trade can see their performance in implementing or violating terms and conditions while one party cannot see other party's performance (Ghorbani and Adili, 2012). One of effective factors in making decision is to have appropriate information relevant to subject of decision. If the necessary information is distributed asymmetrically among people, this can cause different results to be raised. When information asymmetry about stock of company increases, its intrinsic value is different from value that investors recognize for intended stock in investment market. Consequently, actual value of company's stock is different from expected value of shareholders (Ghaemi & Vatanparast, 2005). Concept of biased beliefs about information asymmetry may depend on structure of market itself. The introduction of overconfident agents overturns fundamental relationships between observable variables in perfect-competition asymmetric information insurance models. In models of monopolistic insurance with asymmetric information, in contrast, the introduction of overconfident agents may be observationally equivalent to changes in the composition of risk in the economy. (Sandroni & Squintani, 2012).

This research studies effect of managerial overconfidence on the information asymmetry in companies listed in Tehran Stock Exchange. The previous findings show that managers' overconfidence has direct effect on the performance of securities market. When the overconfidence increases among managers, the company's stock market performance decreases. If board of directors controls the managers, then the quality of and efficiency of information published by manager increase. Improving the quality of corporate financial disclosure causes the information asymmetry to decrease. Decreasing managerial information asymmetry has less profit. Therefore, present study answers this question: Does managerial overconfidence have effect on the information asymmetry of companies listed in Tehran Stock Exchange?

### 2 Research Background

#### 2.1 Theoretical Background

One of effective factors in decision -making is the proper information relevant to subject. If necessary information is distributed asymmetrically (i.e., information is transferred unequally), it can cause different results to be raised. Therefore, before the information becomes important for decision makers, the quality of information distribution should be evaluated accurately. When information asymmetry about the company's stock increases, its intrinsic value becomes different from value that is recognized by investors in investment market. Therefore, actual value of company's stock is different from expected value of shareholders. What attracts attention in investment market is that many people who invest are ordinary people who gain information published by company. One kind of announcements in which proposed share is predicted and announced to public by company is declaration of the profit of every share. If among investors working in the investment market are people who has better conditions in terms of information, for example, they can affect market supply and demand by announcement declared about profit; on the other hand, they can create price spread. Its main reason is information asymmetry in investment market according to which people having information about profit (or any important news) get better condition for decision making

than other. One of important points that are raised about investment market especially stock exchange is “efficiency of market” according to which all information available in the market reflects its effect on the share price. “Efficient-market hypothesis”, maintains information asymmetry of accounting in which one of parties has more information than other. This is raised due to intrinsic information and quality of trading. Even if share price of stock exchange completely reflects the information, it may be possible that in-house people have more information than people outside the organization, and they can achieve profit due to this information. Here, one of subcategories of information asymmetry called “adverse selection” emerges. “Adverse selection” refers to a situation where sellers have information that buyers do not, or vice versa, about some aspect of product quality. This situation occurs before transaction, when traders know about unknowledgeable people in market, the issue of “adverse selection” increases. In this state, increase of information asymmetry is shown through expanding bid-ask spread of stock and market makers exploit the increase of this spread to compensate risk of selection. On the other hand, presence of unknowledgeable people in investment market may cause professional investors to get more rate of return. When new information about company’s condition is released, analysts, investors, and other users analyze the information; then they decide to buy or sell the share according to this information. This information and reaction toward them have effect on the users’ behavior especially actual and potential shareholders and causes price and volume of transaction to be increased or decreased, because people’s attitude toward the new information results in price volatility. Therefore, if information is released asymmetrically or secretly, we witness different reaction from investors due to information asymmetry in investment market. This causes incorrect and misleading analysis of current condition of market. Above matter can show the importance of information asymmetry and undeniable effect on the economic decision (Sandroni & Squintani, 2013).

Duellman et al., (2015), thinks of behavioral finance as simply “open-minded finance.” He states, “in order to find solution to an empirical puzzle, it is necessary to entertain the possibility that some of agents in economy behave less than fully rationally some of times.” Behavioral finance does not try to define ‘rational’ behavior or label decision making as biased or faulty. However, it seeks to understand and predict systematic financial market implications of psychological decision processes. Furthermore, overconfidence is one of modern financial concepts that have especial place in psychological and financial theories. Overconfidence causes man to overestimate his knowledge and to underestimate the risk, so the man thinks of his control over the problems, while it is not as he think (Fallahshams Layalestani et al, 2010).

Assessing effect of managerial overconfidence on the company’s procedure consists of main accounting procedures. Overconfidence can result in incorrect decision and imposes heavy cost on the company through distortion of investment, finance or accounting policies. However, managerial overconfidence can have profit in some conditions. For example, stimulation of overconfident managers for risks is cheaper than other managers. Overconfident managers overestimate the future returns from the invested projects of company. Therefore, they may delay the recognition of loss and have optimistic estimation in determining long term or present value of asset; thus, managerial overconfidence can result in lower level of conditioned and unconditioned accounting conservatism (Ramsheh & Molanazari, 2014).

Managers are inclined to overvalue the asset and undervalue the debt. For example, overconfident manager is inclined to overestimate the collection of accounts receivable and underestimate bad debt reserve. Accordingly, they overestimate net accounts receivable. Similarly, overconfident manager is inclined to overestimate long-term residual value and assets’ useful life; so the value of asset is overestimated. Such overestimation results in aggressive report of assets and

unconditioned conservatism (Ahmed & Duellman, 2013; Ahmed & Duellman, 2012)

## 2.2 Experimental Background

Hurwitz and Sun (2015) assess relationship between managerial overconfidence and audit wages. The results of study show that company with overconfident manager pays less wage to auditors. In addition, overconfident manager is less likely to apply industry specialist auditor.

Chyz et al (2015) assess the effect of managerial overconfidence on the tax avoidance in a study entitled “effect of managerial overconfidence on the tax avoidance.” The results of study show that managerial overconfidence has significantly positive effect on the tax avoidance. Furthermore, they find managerial overconfidence decreases cash effective tax rate (CETR) by 6.6 % and increases differences between accounting profit and taxable profit by 1.5%.

Chen et al (2014) in a study assess the effect of managerial overconfidence on the internal control. They conclude the possibility to preserve ineffective internal control is more among company’s managerial overconfidence. In addition, the possibility to preserve effective internal control is more in companies with overconfident managers and strong corporate governance structure.

Chen et al (2013) in a research entitled “managerial overconfidence and cost stickiness” show that when the sale reduces, managerial overconfidence causes cost stickiness to increase.

Presley and Abbott (2013) in their research entitled “manager’s overconfidence and representation of financial statements” conclude that there is significant relation between representation of financial report and manager’s overconfidence. They show that there is significant difference between overconfident managers in firms with representation and firms without representation.

In a study entitled “CEO overconfidence and dividend policy” Deshmukh et al (2013) conclude that positive stock reaction to announcement of increased profit is often seen in firms that do not trust manager’s overconfidence.

Peng He et al (2013) in a study entitled “information asymmetry and cost of equity capital” conclude that there is positive and significant relation between information asymmetry and cost of equity; this result is significant for financial sectors, health care, oil and gas. Furthermore, it shows that information asymmetry increases the cost of company’s capital.

Sandroni and Squintani (2013) study “overconfidence and asymmetric information about insurance” and conclude that overconfidence changes quantitative prediction in market of asymmetric information and may depend on the market structure. Overconfidence may overturn fundamental relations between observable variables in perfect-competition asymmetric information insurance markets. In monopolistic insurance markets, in contrast, they find that overconfidence may be observationally equivalent to variations in the risk composition of the economy.

In a study entitled “relationship of managers’ overconfidence and selection of financing policy in companies listed in Tehran stock exchange” Chavoshi et al (2015) show lack of relationship between overconfidence and financial decision. In addition to it, the result suggests that the relationships among growth opportunities, profitability, firm size and distress risk with financial decision are significant.

Arabsalehi et al (2014) assess effect of manager’s overconfidence on the sensitivity of investment – cash flow and concludes that senior managers’ overconfidence causes sensitivity of investment- cash flow to increase.

Malakian et al (2013) in their study entitled “assessment of relationship between managers’ overconfidence and conservatism in companies listed in Tehran Stock Exchange” conclude that there is significant relationship between managers’ overconfidence and conservatism in all companies under study.

Rahimian et al (2012) in their study entitled “relationship between profit quality and information asymmetry in companies listed in Tehran Stock Exchange” conclude that there is significant relationship between quality of profit and lack of information asymmetry; and then reduced quality of profit causes information asymmetry to increase.

Khani and Ghajavand (2012) in their studies entitled “effect of market competitive spectrum on the relationship between information asymmetry and the cost of capital in Tehran Stock Market” conclude that at level of competition there is no significant relationship between measurement criteria of information asymmetry and cost of capital. Furthermore, imperfect market competition as an effective factor on the relationship between information asymmetry and cost of capital will be ordinary.

Fadaeenezhad and Khoramnia (2012) study “information content of corporate profit disclosure and its effect on liquidity and information asymmetry in Tehran Stock Exchange” and conclude that three hypotheses of study – indicating the worthiness of information, reduced information asymmetry and increased market liquidity - are confirmed at 95% confidence level in case of bad news released by company, whereas only one hypothesis – concerning increased market liquidity – was confirmed in the case of good news.

Khadamipoor and Ghadiri (2010) in their study entitled “assessing relationship between accruals and information asymmetry in Tehran Stock Exchange” conclude that there is positive and significant relationship between abnormal accrual item and information asymmetry; so that, information asymmetry increase with increase of abnormal accruals.

Rahimian et al (2009) in their study entitled “relationship between some corporate governance mechanisms and information asymmetry in companies listed in the Tehran Stock Exchange”, conclude that there is not significant relationship among internal audit unit and the ratio of outside directors of the board and criteria of information asymmetry. However, there is negative relationship between percentage of institutional ownership and information asymmetry.

Islami and Tehrani (2007) in their research entitled “studying the relationship between individual investors’ overconfidence and volume of transaction in Tehran Stock Exchange” conclude that overconfidence theory is one of theories raised in financial and behavioral field; it is employed to explain the behavior of investors and market incongruent with traditional financial theory. According to this theory, the more the investors trust, the more the volume of transaction.

Ghaemi and Vatanparast (2005) in their research study “role of accounting information in decreasing information asymmetry in Tehran Stock Exchange”, and conclude that there is information asymmetry among investors in Tehran Stock Exchange. This problem is greater before profit announcement compared to the time following profit announcement. In addition, they recognized that information asymmetry was related to level of transactions and share price in such a way that before profit announcement, volume of transactions increases and the share price fluctuates.

### 2.3 Research Hypothesis

Present study examines the relationship between manager’s overconfidence and information asymmetry. Therefore regarding theoretical foundations and goal of research, the following hypothesis is raised:

Managers’ overconfidence has effect on the information asymmetry of companies listed in Tehran Stock Exchange.

### 3 Methodology

Data of this study is collected from financial statements of companies listed in Tehran Stock Exchange, database of stock exchange and Rahavard -Novin software. Gathered data are prepared by the Excel software. Then they are analyzed by Stata and Eviews. Since it is not possible to measure serial correlation and heteroskedasticity by Eviews software in state of panel data, so Stata software is used for both tests.

Time domain of the research is considered a period of 10 years according to financial statement from 2009 to 2014.

Research sample of those companies listed in Tehran Stock Exchange has the following properties:

1. The company whose fiscal year ends in Esfand.
2. The company listed in Tehran Stock Exchange before fiscal year of 2009
3. The company that does not have financial changes between 2009 to 2014
4. The company that is not among financial institute, Investment company and banks due to their different nature.
5. Required financial information is delivered to perform research during period of research.

With regard to performed research, 84 companies that have above- mentioned conditions are selected for statistical sample from 2009 to 2014.

### 4 Research Variables

Operational definition of research variables is as table1:

Table1. Operational definition of research variables

Name of variable	Kind of variable	Symbol of variable	Manner of calculation
Information asymmetry	Dependent	Asymmetric information	$SPREAD_{it} = \frac{AP - BP}{(AP + BP)/2} * 100$
Manager’s overconfidence	Independent	Overconfidence CEO	Three criteria, i.e. investment expenditures, regression residual error and earning per share (EPS) are used to measure it
Financial leverage	Control	Leverage	It is ratio of long term debt to the book value of assets
Size	Control	Size	Natural logarithm of total asset is used to measure the size of company

#### 4.1. Independent Variable

With regard to above-mentioned matter, independent variable of this study is managers' overconfidence and earning per share (EPS) is used to measure it.

#### 4.2 Earnings Per Share (EPS)

Earnings per share is a main statistic that attracts attention of investor and financial analyzer. After corporation tax deductions, EPS is calculated by dividing earnings. It indicates profit that company get per share during a period. In this study, if actual EPS is more than predicted EPS in company, it gets 0 (zero). This indicates lack of managers' overconfidence in the company. If actual EPS is less than predicted EPS, it indicates managers' overconfidence and gets 1.

#### 4.3 Dependent Variable: information Asymmetry

Given that proposed price fluctuates at any moment, in this study best price is used to calculate information asymmetry in bid and best ask prices during a day. To determine the price range of 1986 in Tehran Stock Exchange, the following model is used. This model is applied by Chiang and Venkatesh in proposed year for bid and ask prices of shares. Then other people use this model in their research. Given model is as follows:

$$\sum_{i=1}^N SPREAD_{it} \quad (1)$$

$$SPREAD_{it} = \frac{AP - BP}{(AP + BP)/2} * 100$$

where,

t= period under study

i= sample under study

spread= difference between the bid and ask prices

AP (ask price)= proposed average sale price for shares of a company i in period t

BP (bid price)= proposed average purchase price for shares of a company i in period t.

For calculation, first best bid and ask prices of shares are extracted for 21 days before and after announcement of

Table 2. Descriptive statistics of variables

Variable	Number	Average	SD	Minimum	Maximum
Mangers' overconfidence	504	0/4484	0/4970	0	1
Financial leverage	504	0/4950	0/2332	0/01	0/9967
Size of company	504	13/91	1/708	9/65	19/06
Information asymmetry	504	0/1342	0/2289	0/009	1/73

Since the criteria of overconfidence variable are in qualitative state (0 or 1), so instead of descriptive statistics of table, frequency distribution is presented.

Table 3. Frequency distribution of overconfidence variable with criteria of EPS

Amount	Frequency	Percent	Valid percent	The cumulative percent
0	270	55/16	55/16	55/16
1	226	44/84	44/84	100
Total	504	100	100	

With regard to table 3, the number of companies with managers' overconfidence is 226 that is 44%.

estimated EPS. After calculation of bid and ask spread, the average figures are gotten for every sample before and after announcement. If spread (difference) between bid and ask prices of share is zero, it indicates the information asymmetry toward profit announcement; otherwise, it indicates lack of information asymmetry.

#### 4.4 Research Model

Asymmetric information =  $\beta_0 + \beta_1$  Overconfidence CEO +  $\beta_2$  Leverage +  $\beta_4$  Size +  $\epsilon$

#### 5 Research Findings

##### 5.1 Descriptive Statistics

The results achieved from analysis of descriptive data are shown in table 2. As observed average, number, minimum, maximum, standard deviation of research are shown in the following table. With regard to achieved amounts, the second column presents the available variables and total number of variables are 504 during 6 years. Fifth and sixth columns show minimum and maximum amounts of variables respectively. For example, variable of average financial leverage is .04950. The fourth column is standard deviation (SD). Standard deviation, for example, is 1.70 for size of company.

##### 5.2 Hypothesis Testing

Table 4 shows the results achieved from estimation of model relevant to hypothesis (EPS as criterion of manager's overconfidence) by means of panel data model with fixed effects.

Table 4. Estimation of model by use of panel data model with fixed effect

Model	Unstandardized Coefficient		T statistic	Level of significance
	B	Std. Error		
Manager's overconfidence	01030.	00380.	67.2	00790.
Financial leverage	00580.	00970.	60110.	54810.
Size of company	00390.-	0330.	15.1-	24680.
Intercept	01070.-	05630.	19070.-	84880.

R <sup>2</sup>	44 percent		
Adjusted R <sup>2</sup>	33 percent		
Durbin Watson	2.1		
F Limer	0.000		
Hausman	0.000		
Normality of residuals	0.4606		
Co-integration test	0.000		
Wooldridge test	0.5182		
Adjusted Wald test	0.000		

As shown in table 4, adjusted coefficient is 33 percent, indicating that it is dependent variable of 33 percent dependent on the available variables in the model and 67 percent of it is related to other variables that is not considered in the model. Furthermore, amount of Durbin-Watson statistic is between 1.5 and 2.5 and it indicates lack of correlation. Probability level of F-Limer test is less than 5 percent, and then the data is panel data. Significance level of Hausman test indicates that effect of intercept is fixed. Then regression model is estimated by panel data method with fixed effect. In addition, significance level of Jarque-Bera test for residuals is more than 5 percent; it indicates normality of model's residuals, and there is no need to stationarity of individual variables. In addition, co-integration test (Chen et al., 2010) has significance level less than 5 percent for residuals and indicates stationarity of residuals. This indicates that there is no need to stationarity of individual variables. Furthermore, significance level of recognizing Wooldridge's serial correlation test is more than 5 percent for the model. It indicates lack of serial correlation in the model, and this is approved according to Durbin Watson statistic. The results of Adjusted Wald test indicates heteroskedasticity in residuals. This problem is obviated in the final estimation of model.

Variable of manager's overconfidence has positive coefficient. This indicates that managers' overconfidence has direct relationship with information asymmetry. Since the significance level of this variable is less than 5%, so it can be said that this direct relationship is statistically significant with 95% confident level. So research hypothesis is approved. Control variables of research has significance level more than 5 percent and does not have significant relationship with information asymmetry.

## 6. Conclusion

Overconfidence is defined as "overestimation of one's abilities and results related to personal situation." Managers' overconfidence has direct relationship on the performance of securities market; accordingly, its increase among managers results in decreased stock market performance of company in the future. Investors and owner of company are concerned about discovery of companies' operational and financial problems. Given that in an environment with obscure information, investors are able to recognize and discover profitless projects; this causes negative return of such projects to be continued and accumulated. Overconfidence in managers is new subject in behavioral finance. The subject raised in managers' overconfidence is that psychological prejudices and illusions in executives of company especially among senior managers causes them to trust their own abilities too much so they are reluctant to disclose and complete the profitless project. Since they trust themselves, so they believe that their weakness is covered by better performance in future. Hence, they overvalue the company and maximize the profit of shareholder. Many psychologists state that being overconfident in ability is related to information processing. They present two rational interpretations in this field. First, subjects do not use deductive methods sufficiently. They utilize their informational experience to approve the probable answers. When the answer of a question is discovered, they look for experiences to approve or reject. In this time, subject can get information to approve the primary results while using memory retrieval processes. Perhaps subjects believe that stored

information in memory is enough to select answer and there is no need to deduction process. If financial traders present bid price in the same way, this price arises from their last experience about similar cases. In this case, they search information to justify higher or lower price (Adam et al., 2010).

The main purpose of the study is to assess the effect of staff's overconfidence on the information asymmetry. We use criteria of EPS to determine the managers' overconfidence. Financial specialists pay less attention to social psychology. Financial theorists assess the effect of information on the share price and volume of transaction, but they perform less research about social interaction between people in the stock market. People are inclined to be in congruent with other's decision-making and judgments. Most of investors emotionally react in the market atmosphere; in other words, even when information signals say to people which purchase and sale patterns are correct. To answer the question which behavioral pattern is dominant in the market is dependent on the condition and context of information. The results achieved from estimation of criteria regression (EPS) indicate significant effect of overconfidence on the information asymmetry. This means that managers' overconfidence causes information asymmetry to be raised among users of accounting information. The result of study is in line with findings of Sandroni et al in 2012. It is suggested that investors and analyzers in their prediction should consider the behavioral factor of managers' overconfidence that is effective factor on the information asymmetry. Furthermore, it is proposed that future researches apply other criteria to determine managers' overconfidence and information asymmetry. In addition, future researches can assess the hypothesis of the project in different industries and determine the effect of managerial overconfidence on information asymmetry in different industries.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## EFFECTS OF APPLYING KNOWLEDGE MANAGEMENT TO INCREASE THE EFFICIENCY OF ALBORZ ELECTRICITY DISTRIBUTION COMPANY

<sup>a</sup>FATEMEH KHARAGHANI, <sup>b\*</sup>NAVID KHABIRI,  
<sup>c</sup>SHAHRIYAR ANSARI

<sup>a</sup>Department of Management, Safadasht Branch, Islamic Azad University, Tehran, Iran

<sup>b</sup>Department of Management, Safadasht Branch, Islamic Azad University, Tehran, Iran

<sup>c</sup>Department of Management, Safadasht Branch, Islamic Azad University, Tehran, Iran

Email : <sup>b</sup>Navidkhabiri@gmail.com, <sup>c</sup>sh.ansari.sh@gmail.com

**Abstract.** The main purpose of this study is to investigate the effects of using knowledge management (KM) on increasing efficiency of Alborz Electricity Distribution Company. This study is a descriptive-survey research and in terms of purpose, this study is an applied research. Statistical population of this study consists of experts of implementing knowledge management in Alborz Electricity Distribution Company to 142 people. In order to estimate sample size, Morgan formula is used. Main hypothesis is as follows: using KM has significant effect on increasing efficiency of Alborz Electricity Distribution Company. Obtained results showed that the main hypothesis of this study is confirmed. Moreover knowledge socialization in process of KM can have significant effect on increasing efficiency.

**Key words:** knowledge management, efficiency, knowledge combination, knowledge externalization, knowledge socialization

### 1 Introduction

The current organizational world is a competitive and challenging world. High speed of changes and on the other hand, instability of the environment has threatened life of the organizations. Hence, those organizations that want to guarantee their sustainability and think about improvement of their position in the market have to use modern management approaches. The environmental turbulence has made organizations selecting perfectionism and continuous improvement as their competitive strategy at the current world and considering improvement of productivity as their pattern (Delavari et al., 2009). On the other hand, knowledge management of the organizations is the fundamental element in achievement and survival of competitive advantage in the organization and its concept presents different types of knowledge to support macro strategy of the organization, evaluation of current status of KM, transfer of current knowledge basis in organization to new and powerful databases and compensation of existing deficits in this field. Americas Productivity of Quality Center (APQC) that is a private educational and research institute has defined knowledge management as follows: strategies and processes to identify and gain power of influencing knowledge to raise competitive power. Lenard Barton (1997) has defined knowledge as a sustainable core including 4 factors including integrated system, managerial system, knowledge and skill of employees and valuation.

The global space of the current markets has different features from past time. Today, the conditions of the market are being changed constantly and the organizations are in relation with types of customers with different tastes. All of these conditions have made the organization be under different situation than before. Hence, to continue their life in such environment, the organizations should be able to achieve features such as meeting customer needs rapidly, innovation, cost reduction, improvement of quality and flexibility. Through investigating all of the said features, it could be found that their common point is knowledge. Knowledge lets the organization predict nature and capability of changes in the environment and also strategic decisions. As efficiency and productivity is a comprehensive concept that its enhancement is considered constantly by the scientists and politicians and economists as a necessity to increase welfare and life level of people (Mayel Afshar et al., 2012) and according to role of knowledge and knowledge management in organization, this study has investigated effects of using KM to increase efficiency of Alborz Province Electricity Distribution Company.

### 2 literature review

Knowledge is the real asset of the organizations trying to have successful presence in the global competitive domain and integration of systems, values and organizational resources (Ho, 2016). Knowledge management deals with technical tools and multiple human values. Hence, it can show that how intelligent and learning organizations can design their processes using a knowledge-based strategy again (Fat'hian and Ehsani, 2007). Scientific and commercial societies believe that knowledge-based organizations can preserve their long-term preferences in competitive fields. The references of analysis and competitive perspectives of the organizations show that effects of this attitude are in strategic fields of commercial organizations. Scholars and academics have different attitude to KM and consider a range of technological solutions to a series of academic instructions. According to some comments (Hassanzadeh, 2009), knowledge management as a methodology to produce and preserve and use all facilities is a wide collection of knowledge that is used by any organization in daily and routine activities (Yang, 2015). There is another view that considers KM as a set of processes supporting production and distribution and use of knowledge among relevant intelligent factors and technical tools such as information technology and decision support systems (Welbank, 2013).

Many theorists of KM have been responsible for completing discussion of management and distribution and among them; one can refer to brilliant people such as Peter Dracker, Paul Sterlos and Peter Sange from the U.S (King and Marks, 2012). Dracker and Sterlos have emphasized importance of promoting simple information and knowledge as organizational resources and Sange has emphasized learning organizations to create cultural dimensions of knowledge management (Okunoye, 2016).

Everett Rogers from Sanford University has influenced innovation field and Thomas Alen from MIT University have discussed on information and technology transfer (1970), which led to conducting many studies during 1971 that helped understanding this issue that what is Km; how it is produced, how it is used and how it can influence in the organizations (Shadbolt And Burton, 2011).

Majority of books related to field of technology are begun with several definitions; although it is difficult to define knowledge management. Different authors have defined knowledge management from different perspectives and using different approaches and different incentives (Davenport et al, 2002). Majority of them have defined KM generally and have defined it as everything that organization needs to be able to act based on its duties and activities (Ho, 2016). The definition of knowledge management includes Official knowledge, laws, programs and practices and intangible technical knowledge, skills and experiences of individuals. Moreover, the above mentioned definition of KM includes procedure of the organizations, communications, and status analysis, presentation of new solutions for problems and development of novel methods for business. Moreover, the definition encompasses cultural issues and racial discussions and values and relationship with suppliers and customers (Woo et al., 2016).

Knowledge management is a process, through which the organization produces wealth from knowledge or intellectual capital (Nonaka et al., 1995).

### 3 Knowledge Management

1. Knowledge management refers to achieving to organizational goals through creating incentives in knowledge workers and providing facilities for them according to corporate strategy, so that their ability is increased to interpret data and information (using available results of information, experiences,

skills, culture, individual characteristics, emotions and so on) through making information and data meaningful (Okunoye, 2016).

2. Knowledge management is explicit and systematic management of vital knowledge and processes related to create, organize, distribute and use and explore knowledge (Story and Barent, 2014).

Efficiency refers to the ratio of actual return achieved to the standard return (expected) or ratio of the work is being done to the work expected to be done (Rumesh, 2013).

The main scales to define and evaluate productivity include efficiency scales. Efficiency scales compare inputs or resources of an organization with final products or services. Efficiency refers to ratio of quantity of services and products to financial cost or required labor force. However, this scale and the method of measuring efficiency can't measure amount of customer satisfaction or amount of access to desired goal. For example, efficiency scales show ratio of number of treated people to work hours of doctors; although effectiveness scales are designed in such manner that they show how many patients under treatment have been successful in their treatment (Garcia, 2009). Here, some relevant studies are presented.

Razm Azma et al., (2015) have conducted a study under the title of effect of knowledge management on increasing human resource productivity in Companies of Oil, Gas and Petro chemical Consulting Engineers. Obtained results from Pearson correlation test showed that 5 components of knowledge management model (knowledge creation, knowledge acquisition, knowledge storage, knowledge distribution and knowledge use) are confirmed and efficiency of DMU units are measured and ranked.

Ghazizadeh and Ataei (2013) have conducted a study under the title of knowledge management as effectiveness factor of the

organizations (analysis on role of knowledge acquisition and experience in organizations). In fact, applied strategy in this study is modeling or designing conceptual framework using literature and abstraction (qualitative research method) and visualize the correlation analysis for the relationship between knowledge management and organizational effectiveness (quantitative research methods), which refers to use of mixed method in this study.

Shahbandarzadeh and Ghaemi (2012) have conducted a study to present a model to investigate factors affecting knowledge management deployment. Results of this study showed that the factors "participation of employees" and "organizational factors" have most effect on successful deployment of knowledge management among total scales and subscales of Culture belonged to organizational factors scale (Shahbandarzadeh and Ghaemi, 2012).

Kumaresan and Swarooprani (2015), Nosrati and Mighi (2011), Sherafat et al., (2012), Ghazizadeh Fard and Ataei (2013) have conducted study to investigate knowledge management as predictor of organizational effectiveness and role of demography and employment. Obtained results from the study showed that knowledge management activities are not under effect of demographic factors of individuals. However, this issue is under impact of their employment status, especially in organizational type. The results have been significant and refer to guidelines such as library, especially people from public institutes and they should consider essential instruments to be successful in field of knowledge management and to realize organizational effectiveness (Kumaresan & Swarooprani, 2015).

Fueki and Kawamoto (2009) have also conducted a study under the title of "can IT enhance productivity in Japan?" and have investigated the relationship between IT and increased efficiency during 1975-2005. Results of this study showed that large part of growth in productivity after 2000 is resulted from use of IT (Kumaresan & Swarooprani, 2009).

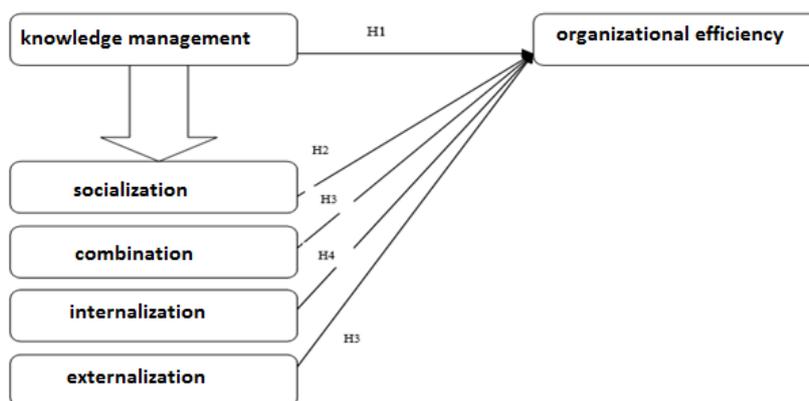


Figure 1: conceptual model of research (source: Ticachi, 1998)

The hypotheses based on conceptual model of research are as follows:

#### 4 Method

The main hypothesis is considered as:

H1: using knowledge management has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

Also, the second hypothesis is considered as:

H2: knowledge socialization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

H3: knowledge combination in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

H4: knowledge internalization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

H4: knowledge externalization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

#### 4.1 Methodology

The main purpose of this study is to investigate the effects of using knowledge management on increasing efficiency of Alborz Electricity Distribution Company. This study is a descriptive-survey research, since the author tends to find nature of effects of using knowledge management to increase efficiency of Alborz Electricity Distribution Company. Type of data in this study is quantitative based on data collection instrument (questionnaire). In terms of purpose, this study is an applied research.

Statistical population in this study consists of executive experts of knowledge management in Electricity distribution Company of Alborz Province to 142 people. To estimate sample size, Morgan formula is used. Number of statistical sample is obtained to 103 people using Morgan formula. Sampling method in this study is available sampling.

In this study, library method is used to collect and codify the literature related to research subject and assessment of the literature.

In this field section, questionnaire is used to collect data and information for purpose of data analysis.

To measure validity of the instrument, content validity is used. The questionnaire is provided based on opinions of 10 senior directors of the Electricity Distribution Company of Alborz and experts of university.

Majority of test makers and scholars fell satisfied when they obtain reliability of 0.90 or higher reliability; although they are dissatisfied by the coefficient below 0.70. In this study, Cronbach alpha is used to measure reliability.

In this study, descriptive statistics are used to show demographic information and to test validity of the questionnaire, confirmatory factor analysis (CFA) is used and to test research hypotheses, structural equation modeling (SEM) is applied using SmartPLS-3 software.

Value of KMO index is obtained to 0.871, which is higher than standard value of 0.6. Hence, number of sample individuals (respondents) is enough to perform factor analysis. Moreover, significance level of Bartlett test is below 0.05 and this shows that matrix of data is not an identity matrix. In other words, there is sufficient correlation among data for factor analysis.

As results of KMO and Bartlett tests have shown that obtained data from the questionnaire is enough for factor analysis, exploratory factor analysis (EFA) can be implemented on the items of questionnaire.

For purpose of data analysis, descriptive statistics techniques are used to measure statistical sample in terms of variables such as gender, age, education level and work experience.

In studies group, 66% of the respondents (68 people) are male and 34.0% (35 people) are female; 3.9% of participants are below diploma; 11.7% have diploma degree; 4.9% have post-diploma degree and 2.9% have PhD degree. Moreover, 4.9% of participants are below 25 years old; 27.2% are in age range of 25-30 years old; 37.9% are in age range of 31-40 and 30.1% are over 40 years old. 4.9% of respondents have work experience below 2 years; 27.2% have work experience of 3-5 years; 37.9% to 6-10 years and 30.1% of respondents have work experience over 11 years (Table 1).

Table 1: results of Kolmogorov-Smirnov Test to test normality or abnormality

Variables	Sample size	Test statistics	p-value
Knowledge management	103	0.57	0.021
Socialization	103	0.81	0.010
Combination	103	0.16	0.031
Internalization	103	0.71	0.024
Externalization	103	0.43	0.025
Organizational efficiency	103	0.61	0.042

If p-value is higher than 5%, variable is normal; otherwise, the data distribution is abnormal. Therefore, all variables have normal distribution according to the table 2.

Table 2: results of one-sample t-test to assess existing status of studied variables

Variable	Theoretical mean value=3.0				
	Observed mean value	SD	t-stat	df	P
Knowledge management	3.4757	1.09226	32.295	102	0.000
Socialization	3.8544	0.96414	40.573	102	0.000
Combination	2.3689	1.25237	19.197	102	0.000
Internalization	3.2621	1.24429	26.607	102	0.000
Externalization	2.5534	1.36287	19.014	102	0.000
Organizational efficiency	1.7573	1.07981	25.915	102	0.000

Significant at level of 0.05

Obtained results from one-sample t-test show that:

- Independent variable of knowledge management and its components (socialization, combination, internalization) have mean value higher than 3.000; except variable "externalization"

that is lower than it. P-value is also below 0.05 and hence, mean value is in average level and H<sub>0</sub> is rejected.

- Dependent variable of organizational efficiency has mean value below 3.000 and p-value is below 0.05. Hence, mean value is in average level and H<sub>0</sub> is rejected (table 3).

Table 3: correlation matrix of main variables

Variable	1	2	3	4	5	6
Knowledge management	1.000					
Socialization	0.786	1.000				
Combination	0.544	0.554	1.000			
Internalization	0.686	0.567	0.605	1.000		
Externalization	0.181	0.457	0.526	0.533	1.000	
Organizational efficiency	0.636	0.366	0.514	0.491	0.685	1.000

\*all correlations are significant at the level of 0.05

All correlations had values below 0.8 and hence, existence of multiple common linear correlations between variables is rejected (Table 4).

Table 4: intensity of correlation between main studied variables

Variable	1	2	3	4	5	6
Knowledge management	1.000					
Socialization	Strong	1.000				
Combination	Strong	Moderate	1.000			
Internalization	Moderate	Moderate	Moderate	1.000		
Externalization	Weak	Moderate	Moderate	Moderate	1.000	
Organizational efficiency	Moderate	Low	Moderate	Moderate	Moderate	1.000

The highest correlation coefficient is possessed to socialization and knowledge management to 0.744 that is in strong level. Also, lowest correlation coefficient is related to externalization

and knowledge management to 0.181, which is in weak level (Table 5).

Table 5: reliability of research constructs

Knowledge management	0.875
Socialization	0.881
Combination	0.890
Internalization	0.792
Externalization	0.798
Organizational efficiency	0.888
All items	0.799

To test reliability of variables in Partial Least Squares Method, factor load test is used and here, the factor load should be higher than 0.6 (Table 6).

Table 6: coefficients of factor loads of research variables

Variable	Dimensions	Item or construct	Sig	Std. factor loads	Result
Knowledge management	Socialization	1-6	22.074	0.861	Confirmed
	Combination	7-11	21.493	0.813	Confirmed
	Internalization	12-16	11.439	0.767	Confirmed
	Externalization	17-23	8.916	0.501	Confirmed

According to the tables 1-6, all variables have factor load higher than minimum level of 0.6 that shows good reliability of the variables. In the Partial Least Squares Method, The average

variance extracted (AVE) is used to estimate convergence of structures. Least value for good convergence validity for each structure is obtained to 0.5.

Table 7: discriminant validity of structures

Variable	AVE
Knowledge management	0.8091
Socialization	0.8179
Combination	0.5509
Internalization	0.8022
Externalization	0.7866
Organizational efficiency	0.8021

According to table 7, it could be observed that average level of variance extracted for the variables of this research is between 0.5509 and 0.8179, which is higher than least value of 0.5 and this shows good convergent validity of the structures.

The level of AVE for all structures is higher than the correlations coefficient with other structures, which shows good discriminant validity of the structures.

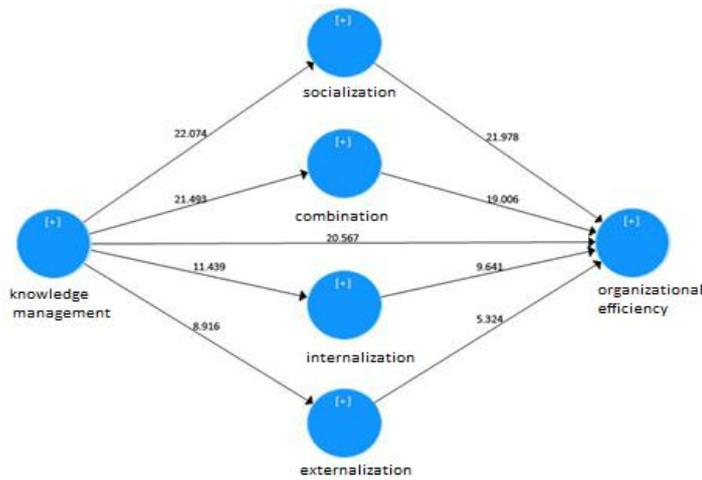


Figure 2: sig levels obtained from structural equation modeling for main hypothesis

According to figure 2, if t-value is between +1.96 and -1.96, the correlations between variables are insignificant at the confidence level of 95% and if the t-value is higher than +1.96 or lower than -1.96, the correlations between variables are significant at the confidence level of 95%. Therefore, is t-value is higher than

1.96, it can show the accuracy of correlation between structures and as a result, confirmation of research hypotheses at the confidence level of 95%. Accordingly, all correlations in model are significant.

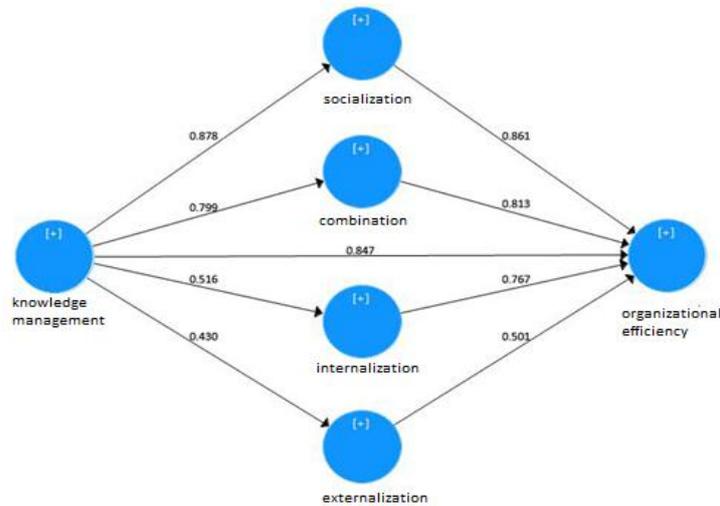


Figure 3: values of standardized coefficients obtained from structural equation modeling for main hypothesis H1

Table 8: results of implementing structural equation modeling for main hypothesis (H1)

Correlations between research variables	t-value	Direct effect ®	Indirect 5grain	Total effect	Result
Using KM→ organizational efficiency	20.567	0.847	-	0.847	Confirmed

According to table 8, structural equation modeling is used to test main hypothesis. Hence, according to path coefficient of variable of using KM to increase efficiency of Alborz Electricity Distribution Company to 0.847 and t-value to 20.567, it could be

mentioned that using knowledge management has significant effect on increasing efficiency of Alborz Electricity Distribution Company and this hypothesis is confirmed.

Table 9: model quality indices and their acceptance in Partial Least Squares Method

Row	Model quality index	Acceptance level	KM	Organizational efficiency
1	Common crossover validity	≥0	0.000	0.000
2	Combined reliability	>0.7	0.916	0.953
3	AVE	>0.5	0.823	0.849

Table 10: results of structural equation modeling for 6 organist hypotheses

Correlations of variables	t-value	Direct effect ®	Indirect effect	Total effect	Result
Socialization – 6organizational efficiency	22.074	0.861	-	0.861	Confirmed
Combination– 6organizational efficiency	21.493	0.813	-	0.813	Confirmed
Internalization– 6organizational efficiency	11.439	0.767	-	0.767	Confirmed
Externalization– 6organizational efficiency	8.916	0.501	-	0.501	Confirmed

Therefore, according to path coefficient of variable of knowledge socialization in KM process to increase efficiency to 0.861 and t-value of 22.074, it could be mentioned that knowledge socialization in KM process has significant effect on increasing efficiency and first secondary hypothesis (H2) is confirmed (Table 9 and 10).

According to path coefficient of variable of knowledge combination in KM process to increase efficiency to 0.813 and t-value of 21.493, it could be mentioned that knowledge combination in KM process has significant effect on increasing efficiency and secondary hypothesis (H3) is confirmed (Table 9 and 10).

According to path coefficient of variable of knowledge internalization in KM process to increase efficiency to 0.767 and t-value of 11.439, it could be mentioned that knowledge internalization in KM process has significant effect on increasing efficiency and secondary hypothesis (H4) is significant and confirmed (Table 9 and 10).

According to path coefficient of variable of knowledge externalization in KM process to increase efficiency to 0.501 and t-value of 8.916, it could be mentioned that knowledge externalization in KM process has significant effect on increasing efficiency and secondary hypothesis (H5) is significant and confirmed (Table 9 and 10).

Table 11: model quality indices and their acceptance level in Partial Least Squares Method

Row	Variable	Common crossover validity	Combined reliability	AVE
		Acceptance level $\geq 0$	$>0.7$	$>0.5$
1	Socialization	0.233	0.763	0.551
2	Combination	0.007	0.718	0.800
3	Internalization	0.147	0.734	0.783
4	Externalization	0.027	0.778	0.806

According to table 11, research model has good quality, since common crossover validity of research variables is positive and

hence, combined reliability of variables is higher than 0.7 and AVE is higher than 0.5.

Table 12: priority of variables in Freidman test

Degree		
Variables	Mean rank	Significance level
Knowledge management	3.24	2
Socialization	3.85	1
Combination	0.982	4
Internalization	3.21	3
Externalization	2.61	5

According to table 12, it could be found that at the confidence level of 95%, values of research variables in studied population are positive and in high level. In field of answering to research questions based on significance of variables, Friedman test is used to rank the variables. Obtained results showed that variable of knowledge socialization has highest rank and importance among all variables and variable of externalization has lowest importance. All hypotheses of the research have been significant and are confirmed.

## 7 Conclusion

The results of confirmation of this hypothesis are in consistence with findings of Razm Azma et al (2015), Kumaresan & Swarooprani (2015), Nosrati and Mighi (2011), Sherafat et al (2012) and Ghazizadeh fard and Ataei (2013).

H2: knowledge socialization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

According to path coefficient of variable of knowledge socialization in KM process to increase efficiency to 0.861 and t-Value of 22.074, it could be mentioned that knowledge socialization in KM process has significant effect on increasing efficiency and first secondary hypothesis (H2) is confirmed.

Main hypothesis (H1): using knowledge management has significant effect on increasing efficiency of Alborz Electricity Distribution Company.

According to obtained results, structural equation modeling is used to test main hypothesis. Hence, according to path coefficient of using knowledge management to increase efficiency of Alborz Electricity Distribution Company to 0.847 and t-value of 20.567, it could be mentioned that using knowledge management has significant effect on increasing efficiency of Alborz Electricity Distribution Company and the hypothesis is confirmed.

The results of confirmation of this hypothesis are in consistence with findings of Razm Azma et al (2015), Kumaresan & Swarooprani (2015), Nosrati and Mighi (2011), Sherafat et al., (2012) and Ghazizadeh fard and Ataei (2013).

H3: knowledge combination in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

According to path coefficient of variable of knowledge combination in KM process to increase efficiency to 0.813 and t-value of 21.493, it could be mentioned that knowledge combination in KM process has significant effect on increasing efficiency and secondary hypothesis (H3) is confirmed.

The results of confirmation of this hypothesis are in consistence with findings of Razm Azma et al., (2015), Kumaresan & Swarooprani, (2015), Nosrati and Mighi, (2011), Sherafat et al., (2012) and Ghazizadeh fard and Ataei, (2013).

H4: knowledge internalization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

According to path coefficient of variable of knowledge internalization in KM process to increase efficiency to 0.767 and t-value of 11.439, it could be mentioned that knowledge internalization in KM process has significant effect on increasing efficiency and secondary hypothesis (H4) is significant and confirmed.

The results of confirmation of this hypothesis are in consistence with findings of Razm Azma et al., (2015), Kumaresan & Swarooprani, (2015), Nosrati and Mighi, (2011), Sherafat et al., (2012) and Ghazizadeh fard and Ataei, (2013).

H5: knowledge externalization in KM process has significant effect on increasing efficiency of employees of Alborz Electricity Distribution Company.

According to path coefficient of variable of knowledge externalization in KM process to increase efficiency to 0.501 and t-value of 8.916, it could be mentioned that knowledge externalization in KM process has significant effect on increasing efficiency and secondary hypothesis (H5) is significant and confirmed.

The results of confirmation of this hypothesis are in consistence with findings of Razm Azma et al., (2015), Kumaresan & Swarooprani (2015), Nosrati and Mighi (2011), Sherafat et al., (2012) and Ghazizadeh and Ataei (2013).

In order to rank factors affecting increasing organizational efficiency (investigation of using KM and its components to increase efficiency), Friedman test is used. Obtained results showed that variable of knowledge socialization has the highest rank and significance among all variables and variable of externalization has possessed lowest rank. All research hypotheses have been significant and are confirmed.

## 8 Suggestions

In line with confirmation of main hypothesis (H1), the suggestions are as follows:

- It would better for managers of company to institutionalize organizational culture in such manner, so that they can encourage the employees to share their information and knowledge to achieve organizational goals.
- The managers should hold some meetings to make the employees familiar with each other.
- Managers should consider appropriate rewarding plans to encourage employees to participate in knowledge sharing.
- Managers of companies should consider technological innovations successfully as an essential issue for the organization.
- In line with development and strengthening self-esteem, the managers could provide good environment to appreciate and reward employees and managers in presence of their families and through acknowledgment papers.
- In line with confirmation of H2, following suggestions are presented:
  - Sharing knowledge and experiences of people with in organization should be promoted.
  - Encouraging people to share knowledge
  - Providing required facilities to share knowledge in the organization
  - Promoting team work in organization.
  - Enough trust in the organization to supply knowledge of individuals to entire organization

- Holding regular meetings to exchange information between authorities and employees
- In line with confirmation of H3, following suggestions are presented:
  - Making right decision according to the knowledge within the organization
  - Providing feedback loops between behavior and its results between organization and employees
  - Use of knowledge for organizational purposes by the employees
  - Key employees should be identified to record and maintain knowledge
- In line with confirmation of H4, the suggestions are as follows:
  - Providing adequate environment to implement new theories and ideas in the organization.
  - Idea management systems such as suggestions system, thinking room and consultation council should be existed in the organizations
  - Certain mechanism should be provided to change implicit knowledge to explicit knowledge within the organization
- In line with confirmation of H5, the suggestions are as follows:
  - To record and maintain the information related to knowledge of employees
  - To record and maintain researches and valuable experiences of employees
  - To register and maintain information related to referees
  - To register and maintain the information of projects and documenting them
  - The organization should be equipped to an electronic memory
  - Some mechanisms should be existed to update stored knowledge.

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**Primary Paper Section:** A

**Secondary Paper Section:** AE

## PERFORMANCE FOCUS ON ACTIVITY BASED COSTING MODEL, EVALUATION AT SINA BANK

<sup>a</sup>ALI ESMAELZADEH MOGHRI, <sup>b</sup>HAMID REZA KORDLOUIE, <sup>c</sup>MOHAMMAD BAGHER VARMAZYAR

<sup>a</sup>*Department of Accounting- Islamshahr Branch- Islamic Azad University- Islamshahr - Iran (Corresponding author)*

<sup>b</sup>*Department of Accounting - Central Tehran Branch- Islamic Azad University- Tehran- Iran*

<sup>c</sup>*Master of Science Student in Accounting- Islamic Azad University- Islam Shahr Branch*

Email: <sup>a</sup>alies35091@gmail.com,

<sup>b</sup>hamidreza.kordlouie@gmail.com, <sup>c</sup>mbvarmazyar@gmail.com

**Abstract.** The present study intends to not only assess current calculation system of cost price of deposits at Sina Bank, but also prepare a new model for calculation of the same for banking deposits by the use of Costing Model based upon centralized activities at Sina Bank. For this purpose, all types of deposits were studied by the use of descriptive method and PFABC mechanism for calculation of cost price of deposits. Then a model were designed for calculation of any cost price. According to the results, Bank usually considers current account as free deposits. While the costs of this kind of deposit were considerable in 2014 and they were more than short-term investing cost deposits. Moreover, total bank deposits, have suitable profitability, so, the real cost price of deposits is lower than funded cost price.

**Keywords:** Traditional costing, Activity Based Costing, Performance Focus on Activity Based Costing, Cost price of Banking Deposits, Sina Bank

### 1 Introduction

At present, there are many companies in developed countries that are changing their Information systems, rejecting traditional models and moving to better costs management with a realistic view. Certainly, any success and continuous activities in such a new competitive environment need some modern methods for changing a simple business into a world level one. This is also true for banking industry.

Price and determining the cost price of products are the most important competitive tools in this field. There are some important cases for determining of correct and real cost price of products/ services. Activity Based Costing (ABC) method will enable the banks to find out an exact image of profitability of various services and customers. This method provides a good chance for finding out better motivators of costs and then put companies in to better situations for making managerial decisions at minor and major levels. In addition, ABC method makes it possible to determine the efficiency and profitability of employees at various branches of bank and headquarters.

Commercial banks in Iran classify equipping costs and allocation of resources under two general titles as Operational or Direct costs (profit of long-term & short-term investments and granted awards to owners of free-interest deposits) and indirect costs accordingly. Therefore, each one of the major services of banking system and the resources of financial supply for banks, all banking deposits include some costs in return. There is a question here how much the cost of mentioned banking deposits? and how we should calculate the cost price of banking deposits according to ABC method?

One of the main goals of designing this information system at the bank and financial institutes are preparing outer-organizational statements and foreign reporting. In case of profit & loss of banks, the cost price of activities calculates base upon traditional methods but there is not separate and exact information about the cost price of special activities or other services and products. (Sepoo et al., 2005).

Meanwhile managerial accounting systems of banks should focus on inter-organizational items in a way to provide better customer satisfaction, international competition and further success at world scale and measurement of people functions at

various departments and sectors. By the way, there are little information about cost price of activities through the mentioned systems. Furthermore, the above-mentioned systems are unable to make any relationship between costs motivators and products of services delivery or the mentioned situation will reduce possibilities for making decisions according to acceptable information. Therefore, it is necessary to establish an efficient cost price system and base upon the latest changes and base on in compliance with various conditions of financial services units, like banks.

According to a complete study of current banking system in Iran, it is obvious that active domestic banks have no more written and applicable costing system and this is a weak point of managerial accounting systems at banks. On the other hand, all banks need exact and correct information about the costs because of newly competitive market that is resulted from privatization policies of the state through establishment of financial institutes and private banks and applying of monetary policies for reduction of profit rates of banking credits.

There is a double need for applying of Activity Based Costing system because of variety of banking services and increase of overhead costs. In addition, with regard to all legal necessities about value of services that are presented to banks, applying of a correct cost price determining system can prepare exact profit margin of the services and according to this profit margin the bank manager will find out variety of services and move the bank to more profits and better activities in new competitive market. Therefore, making a wide scope survey in this field is an effective way for promotion of banking system. As a result, the general purpose of this research is to design a model through which we may calculate the cost price of various banking deposits by Activity Based Costing (ABC) as well.

### 2 Theoretical basics & research history

The real and clear difference between producing institutes and banks is raw materials to produce goods for selling. Cash amounts are the real raw materials of the banks and financial institutes, which is borrowed from customers and other resources. Due to lack of producing of a real product in banks, services are presented to customers through giving loans and absorption of deposits and relevant services.

There are three major groups of banking products (Anvari Rostami & Rezayat, 2007):

1. Different types of deposits
2. Different types of loans and facilities
3. Different types of non-monetary services such as electronic banking (ATM, POS, terminals of branches and telephone-bank)

Regarding the importance of cost price and little evidences that are existed in the banks and wide scope of cost price from various volumes of banking services, the present study has focused on banking deposits.

There are various researches about costing in accordance with banking industry in different countries. For the first time, Kaplan (1987) illustrated that ABC is applicable at American banks for promoting current services and improving new services.

In 1999, an assistant professor at Montreal University of Canada and editor of CMA magazine, Alexander Mercer made a research project at National Bank Card Services Dept. of Canada and illustrated that Activity Based Costing system at Credit Card Section is the best managerial and strategic tool for determining of cost price of services.

In 2004, Olega Lostic could measure cost price of services at Tarto University through E-banking channel and by the use of ABC method and also she could illustrate that Electronic banking has higher profits than traditional one.

Kaplan & Anderson (2007) not only introduced a new generation of costing titled as Time Activity Based Costing", but also they presented some practical steps for calculating of cost price in each banking transactions especially the cost price of Electronic banking transactions. They used time for allocation of costs.

Fuster (2007) illustrated that about 96.2% of sample banks at Spain are familiar with the concept of ABC 31% have used it, 34% have analyzed it but 27% have not used it anymore.

According to the study of Alnasser & Lee (2008) about Chinese banks, there are so many important reasons that never let Chinese banks to implement ABC in this country such as lack of a clear goal, lack of enough knowledge about Activity Based Costing, Weak planning, lack of partnership, resistance of humane force against changes and present of little foreign resources.

Upon evaluation of Portugal banks, Karniz & Sels (2008) illustrated that ABC method is very limited among the banks of this country and most of banks prefer to use Variant Costing method for customers and Absorbed Costing method at branches.

In Iran so many studies about cost price of banking services including deposit services and grant of facilities and e-banking have been done. For instance, upon studying current costing systems of services at state's trading banks, Arab MazarYazdi & Nasser (2003) presented a model for calculation of cost price of banking deposits by the use of ABC at Refah Bank. They illustrated that there was a considerable difference between the results out of ABC and the expected digits by managers of Refah Bank.

Hoshi & Mansouri Ghenaie (2009) studied any feasibility of calculating the cost price of deposits and issued drafts by ABC method at Mellat Bank.

Rahnamay Rouposhti and the other researchers (2009) operational and financial study in West Azerbaijan Province illustrated that calculation method of cost price at both banking systems is not suitable from practical viewpoint and Islamic Banking Rules. In addition, they illustrated that there is a significant different between calculated cost price based upon ABC and traditional method as well.

Namazi & Nazemi (2012) compared both traditional costing system and ABC at electronic services sector of Keshavarzi Bank in Iran. According to the studies, there is a significant difference between both systems and ABC system is more useful in calculation of cost price than traditional one. The cost price resulted from ABC system in 264 out of 470 branches was more than the same out of traditional one.

Nazemi and Seyedi (2012) calculated the cost price of banking services at 14 selected branches of Mehr Bank in Khorasan Razavi Province by ABC method, and then they compared the results with stated rates in banking system. According to the results, the cost price of 1 Rls. granted facilities has a significant difference with average profit rate without calculation of internal transactions of branches (in the format of borrowing or granting any credits to other branches). However, in Iran nobody has studied about cost price of banking deposits by Performance Focused Activity Based Costing method, which is the subject of the present research.

### 3 Methodology

Since the real goal of this study is to find any rules and regulations for real and practical situation and promotion of

products and efficiency of executive methods, it is possible to claim that this research is an applicable one.

On the other hand, this study includes data collection for testing of hypotheses or answering to relevant questions of current situation. According to the data collection method, this research is a descriptive and case study. There is a posteriori method of reasoning. Therefore, we should apply the findings out of sample groups into the statistical population.

The present study is a case survey, so Sina Bank has been studied as a sample of all Iranian trading banks. Sina Bank, Mother Sq. Branch (as a great branch of Sina Bank either from submission of different services or from viewpoint of high volume of banking activities) has been selected. We studied all financial statements and financial documentation of this bank that was related to year 2014. Excel software was applied for any required classification and data analysis.

Library and field methods were applied in this survey for necessary data collection:

1. Benefiting from current statistics and information at headquarter units of the bank
2. Benefiting from current statistics and information at various branches of the bank
3. Interview

#### Executive steps of PFABC

Followings are relevant steps of performance focus on Activity Based Costing in servicing organizations such as producing companies.

There are 9 executive steps in this model:

#### Step I) Recognition of major activities

Due to two important reasons, this step is important: 1- Nature and behavior of costs for any activity is usually different from others. 2- It is one of the major parts of ABC model, which should be maintained for continuity of production process.

#### Step II) Determining of real required resources for any activity:

All personnel who may perform a designed activity should specify the type and necessary resources of each activity according to its behavior with other information systems especially accounting information system. Resources may be time, direct materials and other criteria. This step includes real behavior of resources for the subject from two resources: Reflective resources and committed resources.

#### Step III) Determining the real rate of activities

Real rates of costs will be determined separately in PFABC for any activities and based upon different motivators through current information systems and according to real data and according to relevant resources and behaviors.

#### Step IV) Determining the price of PFABC activities

The price of activities is determined with regard the behavior of costs resources. When there is a variable source, the costs of input factors are obtained by multiplying of real resources that are used in each activity (AR) in real price of used resources (AP).

#### Step V) Calculation of standard rate of activities

In this step, standard rate of each activity should be estimated. It should be calculated exactly because of further application for comparing the real rates and real costs of operations.

### Step VI) Calculation of price violation

Costs managers obtain price violation by calculating real necessary resources multiply in standard price of consumed resources and minus the same from real costs as well. There is no change for committed resources because of their fixed rates.

### Step VII) Calculation of applied costs rate

The first job for calculation of reflective resources is to determine standard rate of consumed resources in an activity. The permitted reflective budget for real job from the viewpoint of reflective resources capacity is obtained by multiplying of required resources of product standard (SR) in real made job (AW) in standard price of resources (SP). In order to calculate any committed resources, we should firstly determine programmed level of budget (BL). It is usually in accordance with practical capacity as well. Therefore, we have  $Spin \times (SIRVA)$  as the price of committed resources. The difference of

both equations is related to reflective resources, which are applied as various costs and related to standard price of activities.

### Step VIII) Calculation of violation rate

Violation rate illustrates whether the manager of a producing company has used more than standard rate of production resources or Not. In fact, it is about operation of producing managers.

### Step IX) Output of the activities

It means total amount of efficiency and effectiveness. Efficiency of resources is defined as the efficiency of an activity resulted from price violation and quantity violation. Meanwhile the effectiveness of an activity means any difference between real made jobs and budget job related to committed costs.

Table 1- Practical steps for Performance Focus on Activity Based Costing and comparing it with other ABC systems

PFABC (Third generation)	TDABC (Second generation)	Traditional ABC (First generation)
Step 1- Activity recognition	Not available (At first step of system performance)	Available
Step 2- Determining of Consuming resources of activities	Not available for all activities, just for the whole circle	Available
Step 3- Calculation of cost rate of consuming resources	Not available for all activities, just for the whole circle	Available
Step 4- Determining the costs of activities	Not available	Available
Step 5- Calculation of standard rate of activities	Not available	Not available
Step 6- Calculation of price violation of consumed resources	Not available	Not available
Step 7- Calculation of absorbed costs of activities	Not available	Not available
Step 8- Calculation of violation in consumed activities	Not available	Not available
Step 9- Calculation of the output of activities	Not available	Not available

## 4 Hypotheses

Followings are the hypotheses of research:

1. It is possible to design a model based upon PFABC for costing of banking deposits.
2. In comparison with traditional methods, PFABC Model may present a better image about banking deposits costs.

## 5 Findings

Equipping of resources

According to the Usury-free Banking Law (Approved in 1983), all Iranian commercial banks are entitled to accept any one of the following deposits:

1. Interest-free deposits

1-1-Current account

1-2- Saving account

2. Deferred investment deposits

2-1- Short-term investment deposits

2-2- Long-term investment deposits (1 year to 5 years)

Rather than these deposits as the major resources of banks, there are some other deposits such as deposit for letter of guarantees, advance payment of letter of credits, advance payments for transactions and so on against some banking services. The above-mentioned deposits are included in the group of financial supply resources.

**Sina Bank** is providing all above-mentioned services besides saving interest-free deposit, which is the major issue of this study. Later we will analysis the cost price of above-mentioned services.

Since the banking deposits (even long-term investment deposits) are immediate extradition, therefore there are various types of these deposits. So it is better to be used in relevant calculations of cost price of various remained deposits at the end of the year from average monthly deposits.

Table 2- Average remained deposits at Sina Bank- Mother Sq. Branch- Tehran in 2014 (Digits in Million Rls.)

Year	Current interest free deposit	Short –term deposit	Long-term deposit	Other deposits	Total	
2014	Amount	47,871	328,464	331,838	72,023	780,196
	Percentage	%6.1	%42.1	%42.6	%9.2	%100

### 5.1 Classification of costs at banks

There are two major groups for any costs at commercial banks:

## 1. Direct costs

It means any payable interest to investors either short-term or long-term (1 to 5 years) and awards of saving interest-free deposits.

## 2. Indirect costs

- Costs related to human force: It means the costs related to bank staff in any branches. With a glance to ledgers of sample branches of bank it is obvious that most of the mentioned costs are: Salary & allowances, additional work, redemption years of services, allowances, awards, assistants, insurance and coming and going
- Non-personnel costs: It means any costs related to branch operations such as: Publication and stationary and necessities, salaries & consultancy fees, communications and telecommunication and satellite band width and TDM data lines.
- Bad debts: They are obtained through deduction last year reserved facilities from current year reserves (calculated reserve pursuant to Circular Letter of Central Bank) as well.
- Overhead of headquarter & supervisor: It means personnel costs of headquarter and supervisors that are allocated in accordance with number of people in each branch (Supervisor costs have been allocated in accordance with number of occupied employees in branch and under the same supervisor).

- Charges costs & currency exchange: It means charges costs and results of currency exchanges of each branch and price acceleration costs of card branch and currency branch of central department that will be classified in accordance with the resources of each branch.

## 5.2 Analytical pattern of costing

For allocation of above-mentioned costs, firstly it is necessary to recognize which part of these costs is attributable to the mentioned services. For this purpose, any costs allocation is defined from two different aspects. The first part is traditional costing method and the second aspect is costing method based upon performance focus on activity based Costing. Later both mentioned aspects will be evaluated in details.

## 5.3 Calculation of cost price of deposits by traditional method

Usually there is not any problems in traditional and new costing methods for allocation of direct costs of products and services, because it is easily possible to browse them for considered goals.

The cost prices of amounts in Sina Bank have been obtained in compliance with considered indexes of Central Bank and according to the relevant statistics and information from General Accounting Management, budget, and IT management as follows:

Table 3- Profit (Loss) of Sina Bank- Mother Sq. Branch- Tehran for the year ended 20. Mar.2014

No.	Description	Price (Million Rls.)	Price (Million Rls.)
Incomes			
1	Operational income (Rls.)	448,396	
2	Operation income (Currency)	39	
3	Dept. of Currency, Card and Welfare	2,548	
4	Investments and projects and treasury	0	
5	Charges incomes & result of currency interactions	17,883	
6	Income of banking deposit & miscellaneous income	58	
7	Award of legal deposits	787	
Total income			469,711
Costs			
1	Personnel costs	2,798	
2	Bad debts	23,292	
3	Non-personnel costs	795	
4	Overhead of headquarter & supervisor	3,428	
5	Deposits interests costs	107,452	
6	Charges and results of currency transactions	2,195	
Total costs			139,960
Profit (Loss)			
1	Operational profit/loss	357,516	
2	profit/loss	329,752	
3	extra/shortage resource	(1,062,016)	
4	Resources in come/cost	(257,008)	
Profit (Loss) of branches after exchange of resources			72,744

Table 4- Cost price of amounts at Sina Bank- Mother Sq. Branch- Tehran-ended 20. Mar.2014

Average rates			
No.	Description		Percentage
1	Average interest rate of deposits (%)		20
2	Average interest rate of facilities (%)		25.7
3	Cost price of amounts (%)		22.4
4	Rate of resources to consumption (%)		255.4
Average of resources & consumption			
No.	Description	Price (Millions Rls.)	Price (Millions Rls.)
1	Total average of resources		763,783
2	Average of free resources		683,496
3	Average of facilities (Rls.)		1,745,512
4	Average of facilities (Currency)		-
5	Average of deposits & investments		-

**5.4 Calculation of cost price of deposits by PFABC method**

Firstly, in accordance with Responsibility Measuring Centers, we should extract any costs from financial ledgers. Since it is impossible to make any relationship between costs and activities in ledgers, usually we should classify the costs in a framework of costs reserves. Here we have made a classification in three resources:

- Any costs which are directly or indirectly based upon working activities of personnel.
- Any costs which are affiliated of deposits volume.

- Depreciation costs.

In addition, the base of allocating the costs to activities is based upon responsibility centers. This type of costs is usually each related activities that is time base on time or output of activates. (Maberli, 2009)

Since the overhead costs include a set of heterogeneous subject heading, it has been divided into five sections as well. Regarding the selection base, followings are proposed motivators for dividing of these costs throughout the branches:

Table 5: Proposed motivators for dividing of indirect costs of excellent branch

Proposed motivator for dividing of costs	Costs
Required time for performing of relevant activities to deposits	Personnel costs
Required time for performing of relevant activities to deposits	Administrative costs of personnel activities
Average balance of deposits	Administrative costs of deposit volume
Average balance of deposits	Bad debts
Number of issued documents	Depreciation costs

Firstly, it is better to allocate indirect costs to three reserves of major ones as follows:

1. First reserve includes any costs, which are affiliated, directly or indirectly, with personnel activities. It includes the followings:

A- Personnel costs including: Salary, Subsidy, and Allowances.

B- Administrative costs including: Publication, Necessities, Stationary, Personnel training, Personnel insurance, Fuel & Lightening, Rent, Repairs, Communications & telecommunications, and Clothing.

The second reserve includes various costs in compliance with volume of deposits. This cost group includes the following costs:

A- Other administrative costs including: fund Insurance, Transportation of monies, and Maintenance costs

B- Bad debts

2. The third reserve includes depreciation costs. As it was mentioned before, one of the most important characteristics of PFABC is that depreciation costs would be inserted in a special method in cost price of product. Depreciation is considered in costing procedure based upon consumption rate.

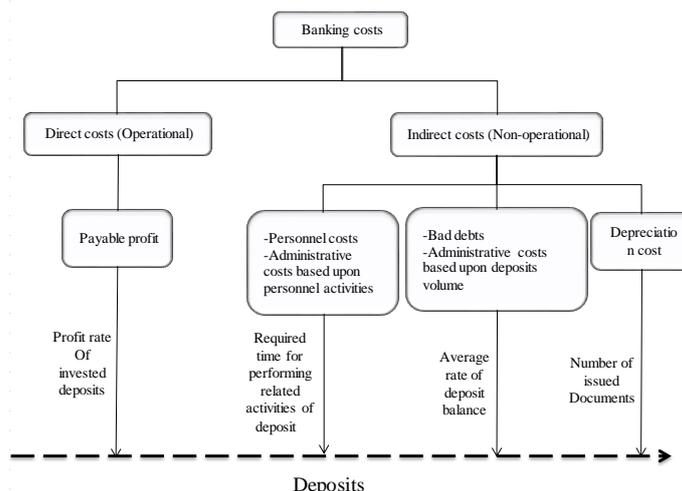


Figure 1: Allocation of banking costs method to any forms of deposits

The real reason of selecting these motivators is that all mentioned costs are affiliated with personnel costs, and therefore we should consider suitable bases with activities of human force in all branches. Firstly, in this study, we allocated personnel and administrative costs in compliance with personnel activities and previous study by Anvari Rostami & Rezayat (2007). Then we divided the same in accordance with real time. In addition, all administrative costs are allocated in accordance with deposits

volume and bad debts are allocated in accordance with average balance of deposits, and Arab Mazar Yzadi and Naseri (2003) would allocate Depreciation costs in accordance with number of issued documents with a glance to the previous study.

Before allocating costs, it is necessary to define real situation of branch costs. Followings are five classification of above-mentioned costs in table 6.

Table 6- Indirect costs of Sina Bank- Mother sq. branch- Tehran in accordance with classification (Digits in Million Rls.)

Year	Personnel costs	Administrative costs based upon personnel activities	Administrative costs based upon deposits volume	Bad debts costs	Depreciation costs
2014	3,950	1,050	3,275	23,292	941

As it is obvious in table No. 6, the major part of branch costs includes bad debts, then personnel costs, and other administrative costs. Salary is the major form of costs, which should be divided in accordance with the time of performing the activities by human force. For this purpose, it is necessary to specify relevant services to human force at first.

Further to the pre-determined cases, the time of banking procedures are the bases of proposed activities for allocation of human force costs. The term of activities are tested on experimental form in this sample branch.

Table 7 illustrates any information about number of issued documents for all deposit accounts as well.

Table 7- Number of issued documents related to various types of deposits in 2014

Term-Deposit	Current Account	Short-term account	Long-term account	Other deposits	Total documents
spring	11,018	1,521	101	25	12,665
summer	13,458	2,291	145	46	15,940
fall	13,649	1,883	119	37	15,688
winter	18,718	2,582	172	43	21,515
Total	56,843	8,277	537	151	65,808

Because of different activities for regulation and issuance of different documents, therefore we adjusted the number of documents by allocation of various weights for issued documents related to various deposits. In this step and with regard to the idea of bank specialists, the average weights of issued documents

were applied for calculation of allocation rate of costs. Table 8 illustrates the allocation rate of costs according to the number of issued documents and relevant information of table 7 and after applying the applicable coefficients and further adjustments.

Table 8- Allocation rate of indirect costs according to the number of issued documents and applicable coefficients

No.	Type of deposit	Current Account	Short-term account	Long-term account	Other deposits	Total documents
1	Number of issued documents	56,843	8,277	537	151	65,808
2	Applicable coefficient	9.13	10.63	10.63	3.96	-
3	1*2	518,977	87,985	5,708	598	613,267
4	Allocation rate (%)	84.62	14.35	0.93	0.10	-

$$\text{Allocation rate of current interest - free deposits} = \frac{518977}{613267} \times 100 = 84.62 \quad (1)$$

### 5.5 Model design

As it was mentioned before, banking deposits costs include two forms of direct/indirect costs. Direct costs mean the interest rate of investing deposits, which are directly effective in calculation of cost price. Firstly, we calculate the relevant shares of various deposits out of total indirect costs in order to find out the indirect rate of deposits. For this purpose, the share of each deposits will be obtained through multiplying of reserve costs in relevant motivating rate, which is obtainable by adding overhead costs to deposits and total allocated overhead to any deposits accordingly.

Finally, in order to find indirect costs rate for various forms of deposits, we divide indirect costs that are related to various deposits according to their shares out of total deposits of free resources. (Applicable deposits for investment)

Regarding the nature of various banking deposits, all banks are obliged to keep a percentage of their either banking deposits sight or insight as deposit in Central Bank. They are named as "Legal deposits" or "Legal reserves".

Legal reserves of banks may be changed according to the types of deposits by lawmaker in a fixed form or according to final decision of Central Bank and in specific conditions it will be in minimum or maximum levels as well. In addition, it is possible

to have equal amounts as legal reserves for all deposits or different cases for sight or insight (Saving & long-term) deposits. In case of different legal reserves, the relevant reserves of sight deposits (Current accounts) would be determined more than relevant legal reserves of non-sight deposits (Saving & long-term accounts) due to more circulation and monetary nature of deposits.

All banks in Iran are obliged to deposit a part of their own deposits in Central Bank of Iran as legal deposits, and customers would keep a percentage in cash in banks for responding to withdrawal of amounts.

Since a part of bank deposits would be closed as legal deposits, therefore the banks are cannot use them for any investment, and it may cause some costs for the banks which should be reflected in cost price of banking deposits accordingly. Moreover, Central Bank pays an annual interest percentage to legal deposits of banks, which should be reflected in cost price calculation as well.

It is necessary to mention that designed model for calculation of cost price of banking deposits is based upon the following hypotheses:

- All banking services and facilities are delivered just to investors and through current interest –free and short-term investing accounts.
- Cash coefficient for all deposits is considered as %2 in order to define some free resources of bank.

### 5.6 Calculation model of cost price for current interest-free deposits

Due to lack of any interests for current interest-free deposits and no more awards, they have not any direct costs. But they include a great part of indirect costs in return. Therefore, more than %70 of indirect costs at **Sina Bank** are based upon personnel activity and current interest –free deposits. This is because most of banking services like payments and receipts, letters of credit, granted facilities and so on are granted through the same deposits. On the other hand, any lack of transfer of suitable services may cause transfer of deposits to any bank (s) which present suitable and quick banking services.

Regarding previous classifications for indirect costs and allocation rates for various deposits and regarding all previous items, following formulation is applied for calculating the cost price of current interest-free deposits:

$$R_{t,DD} = R_{DD} = \frac{\left[ \left( C_a \times \frac{T_{DD}}{T_t} \right) + \left( C_v \times \frac{\bar{V}_{DD}}{\bar{V}_t} \right) + (C_d \times r_{DD}) \right] - (\bar{V}_{DD} \times S_{DD} \times r_s)}{\bar{V}_{DD}[1 - (S_{DD} + L_{DD})]} \quad (2)$$

Where:

$R_{t,DD}$  = Costs rate of current interest – free deposits

$R_{DD}$  = Indirect costs rate of current interest – free deposits

$C_a$  = Indirect costs based upon personnel activities

$T_{DD}$   
= Required time of relevant activities of current interest – free deposits

$T_t$   
= Total time for performing of related activities to deposits

$C_v$  = Indirect costs related to deposits volume

$\bar{V}_{DD}$  = Average rate of current interest – free deposits

$\bar{V}_t$  = Total balance of deposits

$C_d$  = Depreciation cost

$r_{DD}$  = Allocation rate of  $C_d$  to current interest – free deposits

$S_{DD}$  = The rate of legal deposit for current interest – free deposits

$r_s$  = Interest rate of legal deposits

$L_{DD}$  = Maintenance rate of current interest – free deposits for cash

Following is the relevant method of calculation the cost price of a current interest-free deposit by the use of designed model and relevant statistics and deposit information in 2014.

$$R_{t,DD} = R_{DD} = \left\{ \left[ \left( 5000 \times \frac{91.5}{95.5} \right) + \left( 26567 \times \frac{47871}{780196} \right) + (941 \times 0.8462) \right] - (47871 \times \%17 \times \%1) \right\} / 47871 [1 - (\%17 + \%2)] = 0.184 \quad (3)$$

### 5.7 Calculation model of cost price of short-term investment deposits

This type of deposits has some direct (payable profit to depositors) and indirect costs. Following formulation is used for calculation of cost price of these kind of deposits:

$$R_{t,SHD} = R_{SHD} + R'_{SHD} \quad (4)$$

Where:

$R_{t,SHD}$  = Costs rate of short – term investment deposits

$R_{SHD}$  = Indirect costs rate of short – term investment deposits

$R'_{SHD}$  = Direct costs rate of short – term investment deposits

Indirect costs rate is obtained through following formulation:

$$R_{SHD} = \frac{\left[ \left( C_a \times \frac{T_{SHD}}{T_t} \right) + \left( C_v \times \frac{\bar{V}_{SHD}}{\bar{V}_t} \right) + (C_d \times r_{SHD}) \right] - (\bar{V}_{SHD} \times S_{SHD} \times r_s)}{\bar{V}_{SHD}[1 - (S_{SHD} + L_{SHD})]} \quad (5)$$

Where:

$T_{SHD}$  = Performance time of relevant activities of short – term investment deposits

$\bar{V}_{SHD}$  = Average rate of short – term investment deposits

$r_{SHD}$  = Allocation rate of "Cd" to short – term investment deposits

$S_{SHD}$  = Legal deposit rate for short – term investment deposits

$L_{SHD}$  = Maintenance rate o short – term investment deposits for cash

(Because of definition of  $C_a$ ,  $T_t$ ,  $C_v$ ,  $\bar{V}_t$ ,  $C_d$  and  $r_s$  in previous formula, it will not be defined in this formula and next formulations).

Following is calculation method of the cost price of short-term investment deposit in 2014:

$$R_{SHD} = \left\{ \left[ \left( 5000 \times \frac{56.25}{95.5} \right) + \left( 26567 \times \frac{328464}{780196} \right) + (941 \times 0.1435) \right] - (328464 \times \%15.5 \times \%1) \right\} / 328464 [1 - (\%15.5 + \%2)] = 0.051 \quad (6)$$

$$R_{t,SHD} = 0.051 + 0.10 = 0.151$$

### 5.8 Calculation of Cost price of long-term investment deposits

Also there are two types of direct (payable profit to depositors) and indirect costs for long-term investment deposits (1-year, 2-year, 3-year, 4-year and 5-year).

Following formulation is used for calculation of long-term investment deposit costs:

$$R_{t,LID} = R_{LID} + R'_{LID} \quad (7)$$

Where:

$R_{LID}$  = 1 – year long – term investment deposit costs rate

$R'_{LID}$  = 1 – year long – term investment deposit indirect costs rate

$R'_{LiD}$  = 1 – year long – term investment deposit direct costs rate

Following formula is used for calculation of long-term investment deposits indirect costs rate:

$$R_{LiD} = \frac{\left[ \left( C_a \times \frac{T_{LiD}}{T_t} \right) + \left( C_v \times \frac{\bar{V}_{LiD}}{\bar{V}_t} \right) + (C_d \times r_{LiD}) \right] - (\bar{V}_{LiD} \times S_{LiD} \times r_s)}{\bar{V}_{LiD}[1 - (S_{LiD} + L_{LiD})]} \quad (8)$$

Where:

$T_{LiD}$  = Required time for performing of related activities of long – term investment deposits

$\bar{V}_{LiD}$  = Average of 1 – year long – term investment deposits

$r_{LiD}$  = Allocation rate of Cdto 1 – year long – term investment deposits

$S_{LiD}$  = Legal deposit rate for 1 – year long – term investment deposits

$L_{LiD}$  = Maintenance rate of 1 – year long – term investment deposits for cash

For instance, it is possible to calculate the cost price of a 2-year long-term investment deposit according to the designed model of 2014 as follows:

$$R_{LiD} = \left\{ \left[ \left( 5000 \times \frac{9.25}{95.5} \right) + \left( 26567 \times \frac{247352}{780196} \right) + (941 \times 0.0069) \right] - (247352 \times \%11 \times \%1) \right\} / 247352 [1 - (\%11 + \%2)] = 0.040 \quad (9)$$

$$R_{tLiD} = 0.040 + 0.185 = 0.225 \quad (10)$$

**5.9 Calculation of cost price for other deposits**

Other deposits include deposit of Letters of Guarantee, advance payments of Letters of credit, advance payments for transactions

and so on without any direct costs. But they may include a part of indirect costs as well.

Following formula is applied for calculation of cost price of other deposits:

$$R_{tOD} = R_{OD} = \left[ \left( C_a \times \frac{T_{OD}}{T_t} \right) + \left( C_v \times \frac{\bar{V}_{OD}}{\bar{V}_t} \right) + (C_d \times T_{OD}) \right] - (\bar{V}_{OD} \times S_{OD} \times r_s) / \bar{V}_{OD} [1 - (S_{OD} + L_{OD})] \quad (11)$$

Where:

$R_{tOD}$  = Cost rate of other deposits

$R_{OD}$  = Indirect costs rate of other deposits

$T_{OD}$  = Required time for performing of relevant activities of deposits

$\bar{V}_{OD}$  = Average of other deposits

$R_{OD}$  = Allocation rate of Cdto other deposits

$S_{OD}$  = Legal deposit rate for other deposits

$L_{OD}$  = Maintenance rate of other deposits for cash

$$R_{tOD} = R_{OD} = \left\{ \left[ \left( 5000 \times \frac{4.75}{95.5} \right) + \left( 26567 \times \frac{72023}{780196} \right) + (941 \times 0.0010) \right] - (72023 \times \%17 \times \%1) \right\} / 72023 [1 - (\%17 + \%2)] = 0.044 \quad (12)$$

**5.10 Calculation of cost price of deposits at Sina Bank for 2014**

In this part we calculate the cost price of any deposits at Sina Bank in 2014 with regard to all data collected and also prepared models and statistics as well. Excel software has been applied for required calculations the results of calculation are inserted in table 9 as follows:

Table 9- The cost price of any deposits of Sina Bank-Mother Sq. Branch-Tehran in 2014

Year	Current interest –free deposit	Short-term investment deposit	Long-term investment deposit					Other deposits
			1-year	2-year	3-year	4-year	5-year	
2014	18.4	15.1	20.9	22.5	22.8	23.3	23.8	4.4

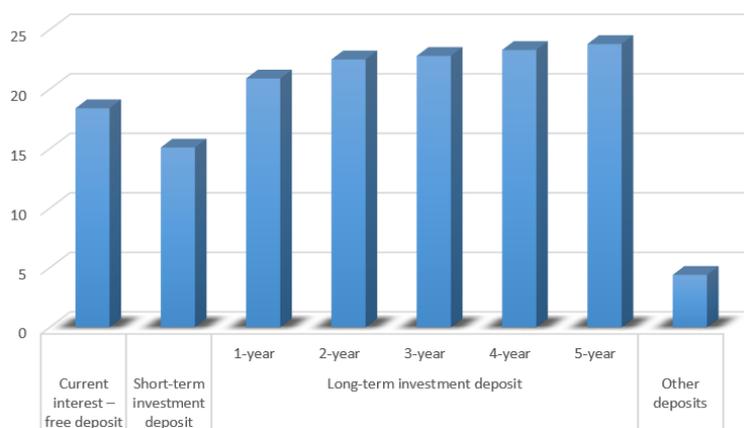


Figure 2- Cost price of deposits at Sina Bank-Mother Sq. Branch-Tehran in 2014

Regarding table 9, all real cost prices of deposits have been obtained through current information systems and according to real data resources. In this step, the standard rate for activities should be estimated. This step has been omitted in ABC and TDABC. But it is assumed as a major step in PFABC as well.

According to table No. 5, all proposed motivators for division of costs include: necessary time for performing activities that are related to deposit, average of deposit balance and number of issued documents. In this step we should estimate the motivators. The first motivator is necessary time for performing relevant activities of deposits. Standard time has been extracted in accordance with bank specialists' ideas.

The second motivator is average balance of deposits, which has been calculated through received reports (Report of financial

information for the fiscal year ended on 20. Mar.2014) about average balance of deposits in 2014 that is illustrated in table 10.

Table 10- Average budget of deposit balance at Sina Bank- Mother Sq. Branch-Tehran in 2014 (Digits in Million Rls.)

Year		Current interest free deposit	Short –term deposit	Long-term deposit	Other deposits	Total
2014	Amount	41,000	285,000	293,000	67,000	686,000
	Percentage	%5.98	%41.55	%42.71	%9.76	%100

The third motivator is number of issued documents that are as follows for 2014.

Because of different activities for preparing and issuance of various documentation, therefore we adjusted the number of documents through allocation of various weights to issued documents related to various deposits.

In this step and with regard the ideas of banking affairs specialists; we consider the weight balance of issued documents by the use of applicable coefficients for further calculation of allocated rate to a part of costs. Table 11 illustrates the allocation rate of costs according to the number of issued documents with regard to the relevant information and applying of necessary coefficients and required adjustments.

Table 11- Allocation rate of indirect costs according to the number of issued documents and applicable coefficient

No.	Type of deposit	Current Account	Short-term account	Long-term account	Other deposits	Total documents
1	Number of issued documents	60,550	9,430	770	250	71,000
2	Applicable coefficient	9.13	9.13	10.63	3.96	-
3	1*2	552,821	552,821	8,185	990	662,237
4	Allocation rate (%)	83.48	15.14	1.2	0.18	-

$$\text{Allocation rate of current interest – free deposits} = \frac{552821}{662237} \times 100 = 83.48 \quad (13)$$

After obtaining the standard rate of resources, price violation should be calculated for activities. For this purpose, firstly, the real required resources for activities should be calculated and

then multiply the real resources in standard price of them due to above-mentioned model and deduct from the real costs accordingly.

$$\text{Violation cost} = (\text{Standard price of resources} \times \text{real necessary resources}) - \text{real costs of activities}$$

Table 12- Calculation of violation cost in 2014

Description	Deposit of current interest-free account	Short-term investment deposit	Long-term investment deposit					Other deposits
			1-year	2-year	3-year	4-year	5-year	
Real resources x standard price	19.5	14.9	21.5	22.9	23.4	23.8	24.3	4.6
Real costs	18.4	15.1	20.9	22.5	22.8	23.3	23.8	4.4
Violation cost	1.1	-0.2	0.6	0.4	0.6	0.5	0.5	0.2

In next step it is necessary to determine standard amount of consuming resources for further calculation of reflective resources. For this purpose, we may use job evaluation system or statistical tools like regression analysis. Permitted reflective budget is obtainable for calculation of real made jobs through multiplying of required standard resources, obligation of job

performance and standard price of resources. In order to calculate pre-determined consuming resources firstly we should determine programmed level of budgets. Then we should specify standard price of pre-determined consuming capacities through dividing of funded costs to funded level.

Table 13- Indirect costs of Sina Bank- Mother sq. branch- Tehran in accordance with classification (Digits in Million Rls.)

Year	Personnel costs	Administrative costs based upon personnel activities	Administrative costs based upon deposits volume	Bad debts costs	Depreciation costs
2014	3,650	972	3,196	23,944	979

Table 14- The cost price of any deposits of Sina Bank-Mother Sq. Branch-Tehran in 2014

Year	Current interest –free deposit	Short-term investment deposit	Long-term investment deposit					Other deposits
			1-year	2-year	3-year	4-year	5-year	
2014	17.6	15.1	21	22.6	22.9	23.4	23.9	4.5

Each deposits calculating is the final step. Total efficiency and effectiveness are illustrated as relevant output. The output of resources is defined as the output of any activities and resulted from price violation and violation rate accordingly. In fact, the output is specified and introduced as any differences between

real made jobs and costing one related to pre-defined costs. Output violation illustrates that whether the programming of resources is used suitably or not? The other factor of output violation illustrates situation that whether a manager be successful in finding any pre-determined goals or not?

Output of activities = Real made jobs – Costing job of predefined costs

Table 15- Calculation of output in 2014

Description	Deposit of current interest-free account	Short-term investment deposit	Long-term investment deposit					Other deposits
			1-year	2-year	3-year	4-year	5-year	
Real job	18.4	15.1	20.9	22.5	22.8	23.3	23.8	4.4
Funded job	18.8	15	21.6	22.9	23.4	23.9	24.4	4.7
Activity output	-0.4	0.1	-0.7	-0.4	-0.6	-0.6	-0.6	-0.3

## 6 Conclusion

In this part we may submit some results out of our investigations and evaluations, data analysis and responding to research hypotheses and finally propose our proposals accordingly.

Followings are the results of the present study:

1. It seems that the costs of short-term investment deposit are more than current interest-free deposit. But as it is obvious in table No. 9, the costs of current interest-free deposits at **Sina Bank** in 2014 was more than short-term investment deposit. This bank may usually consider its current interest-free deposits included in free of charge deposits. Meanwhile, there are considerable costs in 2014 and even more than short-term investment deposit.

2. According to table No. 12, it is obvious that besides short-term investment deposit with non-suitable price violation (Real costs are more than standard one), the remained deposits have suitable price violation (real costs are lower than standard one). In addition, and according to table No. 15, all bank deposits, besides short-term investment deposit, have suitable output while the real cost price of deposits is lower than funded cost price.

3. The other considerable point in this research is the effects of contraction/expansion monetary policies on the cost rate of deposits. Therefore, in case of applying any contraction policies for reducing of monies, there is an increase in cost price of deposits due to the reduction of free resources of banks. In contrast, when there is an increase in monetary policies for increase of monies, there is a reduction in volume of free deposits and cost price of it.

4. According to the researches, applying ABC method based upon banks' activities makes bank have better understanding about profitability of their customers and various services. In addition, this method will determine the efficiency and effectiveness of branches and headquarter administrations of the bank. Really it is a good chance for manager to make better financial decisions including any decisions related to granted facilities and their output rate, controlling of indirect costs, relevant decisions about cash structure, combination of capital and banking deposits and salary rate of granted services to customers as well. According to the results, no more correct bases have been applied in traditional classifications and related to various deposits or banking services. This will endanger any correct decisions.

## 7 Responding to hypotheses

1. It is possible to design a model based upon PFABC for funding any banking deposits.

One of the common methods around world is Activity Based Costing for funding any banking products. In our own country and with regard to considerable percentage of overhead costs (Indirect) out of total bank costs, it is possible to benefit from a variety of operational activities and banking services and also banking mechanization through computer and further registration and recording of accounting activities and also it is possible to use PFABC system for funding any banking deposits.

2. In comparison with traditional costing methods, PFABC model is able to present an exact image of any banking deposits.

According to the researches, PFABC method will enable the banks to find better understanding about profitability of customers and services. In addition, this method will determine the efficiency and effectiveness of branches and headquarter administrations. It may provide a good chance for manager to make better financial decisions including any decisions related to granted facilities and their output rate, controlling of indirect costs, relevant decisions about cash structure of banks and also combination of capital and banking deposits in better situation.

According to the results, it is obvious that there is not a correct base for some traditional classifications about type of deposits (For instance it was revealed that current interest-free deposits need considerable costs while it was assumed that they are free from any costs for the bank).

According to the results, there are some proposals for improvement of funding methods and making better concepts for financial decisions and necessary fields for any competition among the banks through reduction of costs and better management of them.

1. Applying a multiple accounting system at the bank

Today most of financial institutes in the world started to use multiple accounting systems. It may include the following sub-systems:

- A traditional and somehow suitable accounting system with an acceptable operation, which may provide a basic accounting system through common methods in registration of transactions and allocation of costs and submission of financial statements in compliance with common accounting principles for foreign beneficiaries.

- An Activity Based Costing system or other new accounting methods for measuring of real costs of services, customers and organizational units for presenting of exact and correct information (Financial & non-financial) to managers and in order to make better decision. Meanwhile the major role of accounting system and financial affairs in most organizations is controlling of receipts, payments, and registration of accidents for better responding any legal necessities with little attention to management accounting as a managerial tool for controlling of costs and programming.

2. Establishment of an integrated information system about costs & income of the bank

The real requirement for a successful establishment of an Activity Based Costing system (and generally a good and effective accounting system) is an integrated information system of costs and income in compliance with information needs. Meanwhile the current accounting system of the banks are with lack of satisfying any required information needs for measuring and controlling of activity costs.

In order to meet any necessities of both groups (Accountants & decision makers), they should make common items accordingly.

### 3. Creating a floating rate for granted facilities and salary of banking services

There are different financial funding systems in the banks because of any differences in indirect costs from one side and due to various facilities of management and job skills of personnel in presenting of suitable banking services to depositors as well.

Therefore, in such a condition if banks have no chance just to allocate their deposits and facilities without considering their own costs, there is no more place for further competition. However, if they grant any facilities with regard to their costs, it is possible to have a good competition through reducing of costs and increasing of banking deposits for minimizing of cost price and equipping of resources and finally maximizing of the wealth of shareholders. As a result, estimated independence of banks in determining of banking facilities and salary rate of services play an effective role in competition and increasing of efficiency through reduction of their own costs.

As a result, it is necessary for Central bank, as the executor of monetary and credit policies, to consider major economic goals of country and equipping of banks' resources and create a floating rate for granted facilities and salary rate of banking services. Then it is not only possible to meet profitability goals of banks but also allocate banking resources without any differences with client and lawyer of banks and depositors.

### 8 Some proposals for future researches

1. Because of wide range of cost price calculations for banking services, the present study focused on banking deposits services. Therefore, it is proposed to implement ABC systems in other sectors of banking services including e banking and grant of facilities and then compare the results.
2. It is proposed to calculate cost price of banking services in accordance with other new methods of funding such as ideal funding, Kaizen funding, Activity Based Costing and comparing them with each other.
3. Costing of banking services by the use of other quantitative methods such as regression advanced parameters, Data Exclusive Analysis and ...
4. Implementation of costing system based upon activity in other servicing institutes
5. Designing a suitable accounting system for calculation of cost price of different banking services based upon ABC system and other costing methods.

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**Primary Paper Section: A**

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## COMPARISON OF PROFESSIONAL ETHICS AND PSYCHOLOGICAL EMPOWERMENT AND JOB PERFORMANCE IN MALE AND FEMALE PHYSICAL EDUCATION TEACHERS IN KARAJ

<sup>a</sup>LEILA VAFA, <sup>b</sup>MAHVASH NOORBAKHS, <sup>c</sup>MAHDI KOHANDEL

<sup>a</sup> Master in Faculty of Physical Education and Sport Sciences, Islamic Azad University, Karaj Branch, Karaj, Iran

<sup>b</sup> Professor in Faculty of Physical Education and Sport Sciences, Islamic Azad University, Karaj Branch, Karaj, Iran

<sup>c</sup> Associate Professor, Faculty of Physical Education and Sport Sciences, Islamic Azad University, Karaj Branch, Karaj, Iran  
Email:<sup>a</sup>leyla.vafa1@gmail.com,

<sup>b</sup>mahvashnoorbakhs@yahoo.com, <sup>c</sup>Mehdikohandel@yahoo.com

**Abstract.** Current research aims at comparing professional ethics, psychological empowerment and job performance of physical education teachers in Karaj. Descriptive research methods were applied and the research was conducted as field study using questionnaire. Reliability of the questionnaires was obtained as 0.80, 0.85, and 0.78 respectively for professional ethics, psychological empowerment, and job performance variables using Cronbach's alpha. Findings showed that professional ethics in female physical education teachers is higher than male. Average of truthfulness, justice and fairness is higher in female physical education teachers than male. It is suggested that education organization create such environment for employees so that they attempt to realize organizational goals by developing fair treatment.

**Keywords:** professional ethics, psychological empowerment, job performance, physical education teachers.

### 1 Introduction

The teacher directly influences academic achievement of students considering his critical role in improvement of the schools, because in interaction process, teachers have highest involvement with students and impose highest influence on them, thus job performance of the teacher is influenced by structural meta-structural factors (Ogava, 2005). One of the main elements in this relation is presence of efficient teachers which have professional ethics. Importance of the teacher in education and his various tasks in knowledge development and education depicts role of teachers and significance of having professional ethics for them more than ever. Accordingly, root and origin of many activities and behaviors of the teachers should be looked for in the ethics and ethical values. Ethics contains principles and values which govern individual and collective behaviors entitled as wrong or right (Mahmoodi Shan et al., 2009). Today discussion of ethics has gained special status in management literature, and it is regarded as one of the elements of welfare in material and spiritual life of human being, because ethical criteria leads to strengthening social relations (Kiyani et al., 2008). Also, the issues of ethics in education and teaching have been neglected in most cases and there are rare research works in this regards. Investigation of educational ethics observance by faculty members (Arasteh et al., 2010), status of professional ethics in education (Alevi and Gehshin, 2011), necessity for paying attention to ethical issues (Gudarzi et al., 2011), and investigation of teaching ethical components are among rare cases of research works in this area. Meanwhile, paying attention to professional ethics and its consequences is one of the basic research subjects in organizational fields. Considering ethical and competent teachers have higher efficiency and productivity, empowerment issue, which is the healthiest way of contributing employees in the power, should be taken into account. Considering above mentioned materials, Conger and Kanungo (1998) defined empowerment as motivational concept of self-efficacy. Following review of related literature, Tomas and Velthous (1990) argued that empowerment is a multifaceted concept and its nature cannot be explained by a single concept (Ostovari, 2009). Extensive studies and research works on organizational behavior has showed that empowerment manifests employees' perceptions and behaviors such as using innovations or increases them (Spreitzer, 2008). In the social perspective, the interesting point for organizations is that their employees perform their tasks well. Good performance increases organizational productivity and finally leads to increased

national economy (Spector, 2008). Psychological empowerment and job performance are two variables which considerably influence effectiveness and success of the organization. Rothman (2002) defines job performance as a multifaceted construct which indicates the employees' performance, their innovation and solutions for problem solving, and the way of using available resources as well as using time and energy in performing job tasks. Valentine and Fleischman (2008) maintain that professional ethical standards encourage social responsibilities, because these measures are associated with improvement and development of employees' ethics. Adler (2014) studied ethical challenges in instructors and students and effective policies. Research findings suggested three types of intermediates affecting individuals' professional ethical behavior in the work place. Nazim et al., (2013) state that followers feel empowered and finds ethical identity when they perceive charisma of the leader based on the constructive narcissism rather than destructive narcissism. Chiang and Tsung-Sheng (2011) in their studies showed that perceived organizational support alone cannot be much effective on job performance. Gerhard et al. (2008) in their work stated that political skill as one of the constructs of social skills is positively related with job performance. Somech (2004) in his work entitled "leadership style impact and team process on performance and innovation in performance of heterogeneous teams" showed that there is difference in views and beliefs in highly heterogeneous teams. Considering what mentioned above, professional ethics is one of the basic issues in all human communities and it seems that professional ethics is less considered in our community. On the other hand, review of past studies indicate that there is no comparative study regarding professional ethics, psychological empowerment and job performance of male and female physical education teachers. Thus, necessity for this research is felt. The question established by the author is as follows: is there any difference between professional ethics, job performance and empowerment in male and female physical education teachers? The author hopes that findings in the current research provides useful information for education organization of the country and makes grounds for more comprehensive research works at national level.

### 2 Methodology

Research statistical population included all male and female physical education teachers in Karaj city (N= 750, 455 females and 295 males). 245 ones were randomly selected and considered as statistical sample. Data collection tool included questionnaires of professional ethics by Ghasemzadeh et al., (2014), Spreitzer's psychological empowerment (1995) and job performance questionnaire. Descriptive research method was applied and it is a survey research using standard questionnaire as the tool. 245 ones were randomly selected based on Morgan table (150 females and 100 males) and considered as statistical sample. Three types of questionnaires were used for measurement of variables.

**Professional ethics questionnaire:** This questionnaire was developed by Ghasemzadeh et al., (2014) including 16 items based on five-point Likert scale with accountability, honesty, fairness, loyalty, excellence and competitiveness, empathy with others, respect, and respect for social values and norms components. In this study reliability of professional ethics variable was calculated using Cronbach's alpha coefficient as 0.8.

**Psychological empowerment questionnaire:** This questionnaire was developed by Spreitzer (1995) in 12 items. These items were based on five-point Likert scale including meaningfulness, competence, choice and effectiveness. In the present study, reliability of psychological empowerment variable was calculated using Cronbach's alpha as 0.9.

Job performance questionnaire: This questionnaire was developed by Paterson and contains 15 items. The way of scoring in this questionnaire was as follows: very weak (rarely), weak (sometimes), good (often), and excellent (always). In the current research, reliability of job performance variable was calculated using Cronbach's alpha as 0.9.

In order to data analysis, firstly descriptive statistics was investigated and frequency table of the questionnaire was

evaluated and frequency percent, standard deviation, and average of items was obtained. Also, in order to answer to hypothesis, multivariate variance analysis and one-way variance analysis was used for comparison of variables.

### 3 Findings

Table 1 gives descriptive statistics related to research variables.

Table 1. Descriptive statistics related to research variables in terms of gender

Variable	Statistical indexes							
	Mean		SD		Min.		Max.	
	Female	Male	Female	Male	Female	Male	Female	Male
Professional ethics	4.12	4	0.39	0.47	2.94	2.75	4.88	4.81
Accountability	4.33	4.2	0.54	0.58	3.	2.5	5	5
Honesty	4.7	4.27	0.54	0.57	1.5	2.5	5	5
Fairness	3.2	2.96	0.86	0.93	1	1	5	5
Loyalty	4.22	4.1	0.67	0.58	1.5	2.5	5	5
Excellence	3.69	3.68	0.9	0.9	1	1	5	5
Respect	4.19	4.15	0.65	0.69	2.5	2	5	5
Empathy	4.43	4.35	0.61	0.59	1.5	3	5	5
Respect for norms	4.23	4.31	0.67	0.69	1.5	2.5	5	5
Empowerment	3.99	3.85	0.55	0.63	2.67	2.47	5	5
Effectiveness	3.82	3.8	0.72	0.74	2	2	5	5
Choice	3.79	3.44	0.67	0.81	2	1.67	5	5
Competence	4.1	4.1	0.65	0.7	1	2.67	5	5
Meaningfulness	4.27	4.12	0.53	0.62	2.67	3	5	5
Job performance	4.53	3.98	0.52	0.54	2.4	1.73	5	4.87

Table 2 gives results related to one-way variance analysis regarding professional ethics and its aspects in male and female physical education teachers. According to results in Table 2, there is significant difference between male and female physical education teachers in terms of professional ethics. There is significant difference in terms of honesty between male and

female physical education teachers. Fairness aspect showed significant difference between male and female physical education teachers. Considering results in Table 3, mean of fairness aspect in female physical education teachers is higher than male physical education teachers. Significant difference was one observed in other aspects.

Table 2. One way variance analysis results regarding professional ethics and its aspects in male and female teachers

Source of changes	Sum of squares	Degree of freedom	Mean of squares	F statistics	Sig. level	Mean		
						Female	Male	
Gender	Professional ethics	0.89	1	0.89	4.88	0.02	4.12	4
	Accountability	0.98	1	0.98	3.15	0.07	4.33	4.2
	Honesty	10.83	1	10.83	35.04	0.00	4.7	4.27
	Fairness	3.36	1	3.36	4.2	0.04	3.2	2.96
	Loyalty	1.32	1	1.32	3.25	0.07	4.22	4.1
	Excellence	00	1	00	00	0.9	3.69	3.68
	Respect	0.11	1	0.11	0.25	0.6	4.19	4.15
	Empathy	0.35	1	0.35	0.96	0.3	4.43	4.35

Table 3 gives results related to one-way variance analysis regarding job performance, empowerment, and its aspects in male and female physical education teachers. According to results in Table 3, there is significant difference between male and female physical education teachers in job performance. Considering results in Table 3, mean of job performance in female physical education teachers is higher than male physical education teachers. There is significant difference between male and female physical education teachers in terms of mean of choice aspect. Considering results in Table 3, mean of choice

aspect in female physical education teachers is higher than male physical education teachers. There is significant difference between male and female physical education teachers in terms of mean of meaningfulness aspect.

Considering results in Table 3, mean of meaningfulness in female physical education teachers is higher than male physical education teachers. There is no significant difference between male and female physical education teachers in terms of psychological empowerment and its aspects.

Table 3. One-way variance analysis results regarding job performance, empowerment, and its aspects in male and female teachers

Source of changes	Sum of squares	Degree of freedom	Mean of squares	F statistics	Sig. level	Mean		
						Female	Male	
Gender	Job performance	17.8	1	17.8	62.9	0.0	4.53	3.98

	Empowerment	1.1	1	1.1	3.1	0.07	3.99	3.85
	Effectiveness	0.02	1	0.02	0.04	0.8	3.82	3.8
	Choice	7.3	1	7.3	13.8	0.0	3.79	3.44
	Competence	0.02	1	0.02	0.05	0.8	4.1	4.1
	Meaningfulness	1.3	1	1.3	3.9	0.04	4.27	4.12

Table 4 gives results of one-way variance analysis regarding professional analysis and its aspects and job performance in male and female physical education teachers. According to results in Table 4, there is significant difference between male and female physical education teachers in terms of professional ethics. Considering results in Table 4, mean of professional ethics is higher in female physical education teachers than male teachers. There is significant difference between male and female physical education teachers in terms of honesty aspect. Considering results in Table 4, mean of honesty aspect is higher in female physical education teachers than male teachers. Given results in Table 4, there is significant difference between male and female

physical education teachers in terms of fairness aspect. Also, in above table it is observed that mean of fairness aspect in female physical education teachers is higher than male teachers. There is no significant difference between other aspects.

According to Table 4, significance level of gender effect for job performance variable is below 0.05, and it is significant at level  $P < 0.05$ . Thus, job performance shows significant difference in male and female teachers. Given results in Table 4, mean of job performance in female physical education teachers is higher than male physical education teachers.

Table 4. Results of one-way variance analysis regarding professional ethics, job performance in male and female teachers

Source of changes		Sum of squares	Degree of freedom	Mean of squares	F statistics	Sig. level	Mean	
							Female	Male
Gender	Professional ethics	0.89	1	0.89	4.88	0.02	4.12	4
	Accountability	0.98	1	0.98	3.15	0.07	4.33	4.2
	Honesty	10.83	1	10.83	35.04	0.00	4.7	4.27
	Fairness	3.36	1	3.36	4.2	0.04	3.2	2.96
	Loyalty	1.32	1	1.32	3.25	0.07	4.22	4.1
	Excellence	00	1	00	00	0.9	3.69	3.68
	Respect	0.11	1	0.11	0.25	0.6	4.19	4.15
	Empathy	0.35	1	0.35	0.96	0.3	4.43	4.35
	Job performance	17.8	1	17.8	62.9	0.0	4.53	3.98

#### 4 Discussion and Conclusion

According to results, there is significant difference between attitude of male and female physical education teachers in terms of professional ethics and its aspects. There is significant difference between all aspects of professional ethics in instructors expect human and organizational relationships, and also there is no significant difference between views of male and female students, humanities and basic science students regarding five aspects of professional ethics. Some findings are consistent with findings in the current research. Adler (2014) introduced three types of intermediates which influence professional ethics in individuals in the work place. Payne and Landry (2006) studied business and professional ethics and research findings indicated ethics is not yet prevalent and common among professional individuals in IT field, which is not consistent with findings in this work. Reason for significant findings can be due to various factors such as religion, family, environmental conditions, social status, age, gender, race, etc.

Other findings showed that there is significant difference between attitude of male and female physical education teachers regarding job performance, empowerment and its aspects. Results of the current research are inconsistent with findings by Chiang and Tsung-Sheng (2011). They studied impacts of perceived organizational support and psychological empowerment on job performance and concluded that perceived organizational support alone cannot be much effective on job performance. Gilboa and Shirom (2008) comprehensively investigated relationship between stressors and job performance of employees. They found that there is significant relationship between stressors and job performance, which is not consistent with findings in the current work. Rubina et al., (2008) shoed there is inverse relationship between occupational stress and job performance, that is, high occupational stress leads to low job performance. Also, it was shown that male officers are more affected by stressors than female officers, which is not consistent with findings in the current research. Possible reasons for this difference may be related to research by Hersi and Goldsmith

(2004) who considered effective performance management subject to seven variables. These variables include ability, motivation, environment, reliability, evaluation, clarity, organizational support or help. According to Spector (2008) individual can act well in their job when they have necessary ability and motivation for having appropriate performance. In fact, he believes that ability and motivation leads to optimal job performance.

Research findings indicate significant difference between attitude of male and female physical education teachers in terms of professional ethics and its aspects and job performance, which is consistent with findings by Valentine and Fleischman (2008). They showed that standards of professional ethics encourage social responsibilities, because these measures are associated with development and improvement of employees. Abdul-Rahman and Wang (2010) studied impact of professional ethics on construction quality and found that professional ethics is an important factor for achieving acceptable quality and stability in construction, which is not consistent with some findings in the current work. Possible reason for this inconsistency can be due to difference in the fields and statistical samples in two research works. Findings of most studies related to this subject are rare and it can be stated there is no comparison between all variables of this research. Overall findings in the current research suggest significant difference between attitude of male and female physical education teachers regarding professional ethics and its aspects including honesty, fairness, and female teachers outperformed male teachers. Mean of job performance was higher in female teachers compared to male teachers, and even mean of having right of choice was higher in female physical education teachers than male teachers. Thus, it is suggested that suitable grounds are provided for male physical education teachers for motivating them and increasing their empowerment so that job performance is improved. Also, it is recommended that education organization provides such environment so that employees attempt in peace for realization of organizational goals which can be obtained by fair treatment with all male and female employees.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## STRATEGIC PLANNING OF TOURISM DEVELOPMENT DURING THE SANCTIONS WITH BALANCED SCORE CARD (BSC) APPROACH, CASE STUDY: SHIRAZ CITY

<sup>a</sup>GHOLAMREZA NIKOOKAR <sup>b</sup>MAHDIYEH FATEHI

<sup>a</sup>Associate professor in Imam Hossein Comprehensive University

<sup>b</sup>MA of MBA management, strategy trend, Tehran University,  
Instructor at Payameh Noor University

Email: <sup>a</sup>ghniko@ihu.ac.ir, <sup>b</sup>fatehi.mahdiye@gmail.com

**Abstract.** Today, tourism is one of the most dynamic economic activities today and plays an important role in local permanent development. The goal of the present research is identifying the capacities and editing the proper strategies for organizing the tourism during the sanctions. We tried to identify the components affect the tourism, its problems and the blockages in its development over the sanction by providing proper management strategies to improve the tourism capacities. The experimental test of the model conducted by using the interviews, the sample size of the expert population and all people who are active in tourism industry of Shiraz. The findings of the research indicate that the current research is effective regardless of its tough implementation and it's more efficient than the simple models in tourism industry during the sanctions.

**Keywords:** strategic planning, sanctions, Balanced score card, them analysis.

### 1 Introduction

Tourism turned to be the biggest industry in the service unit and it's considered the first industry around the world in terms of importance. It's also one of the most dynamic economic activities today and plays an important role in local permanent development. Tourism is considered as an important developmental tool for national economy. The importance of tourism highly depends on economic cycle which has a high capability in national and international economy dynamic in a way that the tourism consumptions, government and private investment and also export in this realm in 2004 had growth equal to 9.5 % and round 5.5 trillion dollars (Lee, 2008).

Therefore, the government policies in the recent decades have been focused on tourism development as a way of battling unemployment and creating income. The importance of tourism industry and its role in social, cultural and economic development led many local, regional and national managers and planners to plan for its development (Batler, 2002).

Currently, there are various implemental and theoretical experiences around the world for studying, analyzing, planning and managing the tourist regions which have an ascending flow synchronous with technology developments (Tesay et al., 2010). This flow and also the global issue of tourism complexities caused that the comprehensive, techniques and mixed models be taken into consideration (Jerry Ho et al., 2011).

Planning as a scientific tool helps the tourism workers to specify the best way of development in a region in a scientific and consistent process and to place it in path of developing other economic sections (Long, 1990). After the Second World War, the lack of confidence, consistency and evolving environment showed up more than before and the strategic planning was introduced as a solution.

The strategic planning is a framework for applying strategic thinking and leading operations in order to reach to certain goals and results. In other words, it's an organized effort for fundamental decisions which orients the organization's activities in a legal framework. The organizations can provide strategies which are proper with power points and they can remove the weak points and use the opportunities for facing with threats (Brison, 1993).

Now, due to the fact that Iran is considered as the most wonderful country in the work in case of different cultural attractions, arts, environment, having various attractive cities and because it's among the tenth countries of the world in terms of

the tourist attraction, developing tourism as a new strategy can play an important role in making the economy variable and it can provide new opportunities for Iran.

Tourism as an efficient economic factor has been taken into the consideration during the recent year and provided economic development in some countries and regions. Creating different jobs and its variety is in a way that both skillful and simple workers can find jobs. Many countries consider the tourism industry as the main source of income, growth of private section and develop of infrastructures. Today, this industry is very important in economic and social development of the countries in a way that economists called it "invisible export" (Batler, 2002).

Shiraz is one of the most important tourism center in Iran and it has varied potentials in this realm. It's considered as one of the most attractive cities in terms of tourism among Iranian people and all over the world. This city is very important for foreign tourists and they normally considers it as a tourist destination when they visit Iran. Due to the importance of foreign tourism industry in Shiraz and Iran, it should be stated that there's a high distance between the status quo and the proper situation in case of attracting foreign tourist in Shiraz city. This shows the importance of a comprehensive planning. The studies show that due to the fact that the potentials of tourism industry are present in Iran and specially in Shiraz, attracting foreign tourists should be tenfold and even centesimal.

The tourism industry faces the political and security problems including the sanctions on one hand and the politician's deficiencies on the other hand led this stable economic source be weak and unknown. Therefore, a question arises is that what are the weak and power points of the tourism industry and what threats and opportunities does it face. Then, based on the weak and power points, threats and opportunities, the strategic planning should be conducted for developing tourism which help overcoming such limitations.

The research tries to answer the following questions:

What are the challenges of tourism industry during the sanctions?

What are the components affect the tourism industry development?

What are the most important weak and power points, opportunities and threats?

Then, we provide strategies for developing tourism in Iran even during the sanction.

### 2 The importance of the research and the motivation

Today, creating tourism in cities, exploring rural attractions, recreating historical places and monuments, focusing on natural resources and etc. led many countries to a huge wealth and they are considered a consistent economic source for them. Today, many countries can improve their situation by this way and they can decrease unemployment, decreasing the capitation and foreign exchange income. Establishing and building hotels, restaurants and all recreation and sport centers increases income and decreases unemployment and poverty (Kandeloyi, 2011).

Since the strategic planning is adherent to values, ideologies, policies and strategies of the society (which most policy makers decide for it) tries to solve the main problems of the society and its growth, it's based on prediction and forward-looking and it had a developed and oriented perspective.

Therefore, the present research tried to analyze the strategic planning during the sanctions by using BSC approach in Shiraz so that we can identify the weak and power points, opportunity and threats during the sanctions and providing strategic guidelines for developing Iran.

The main goals of the research are as follows:

1. Identifying the capacities and editing the proper strategies in order to organize tourism during the sanctions
2. Identifying and analyzing the weak and power points, opportunity and threats of tourism during the sanctions.
3. Providing proper management strategies in order to improve tourism capacities during the sanctions.
4. Identifying the components affect the tourism development
5. Identifying the problems in realm of tourism industry
6. Identifying obstacles in tourism development during the sanctions
7. Identifying ways for developing tourism during the sanctions

### 3 Method

The research method composed of rules, tools and valuable ways for analyzing the realities, exploring the unknown and achieving the problem solving. Using the scientific method is the only way for achieving the scientific results (Khaki, 2005).

The qualitative method is used by sing thematic analysis and interviewing the experts. The thematic analysis is a method for determining, analyzing and stating the patterns (thematics) of data. This method at least organizes data and describes them in details. However, it can go beyond and explain various aspects of the subject.

The qualitative methods are very complex and the thematic analysis should be considered as a fundamental way for qualitative analysis. The thematic analysis the first qualitative method that the researchers must learn because it provides main skills which are necessary for implementing many other qualitative methods (Braun & Clarke, 2006).

The data analysis process by using thematic analysis:

The process of thematic analysis starts when the analyst considers conceptual patterns and subjects which are potentially attractive. This process includes a continual sweep among data sets, coded sums and data analyses which occur. Recording the analysis starts in the beginning and totally, there's not unique way for starting thematic analysis study.

The six procedures of thematic analysis are explained in the following section. The thematic analysis is a recursive process in which there are moves forward and backward. Moreover, it's a process which is done during the time.

Stage 1: becoming familiar with data: the researcher needs to overwhelm himself into the data in order to become familiar with the depth of data content. Overwhelming into data usually include "repeated reading of the data" and the reading of data is in an active form (i.e. searching for concepts and patterns).

Stage 2: creating the initial codes: the second stage starts when the researcher reads the data and becomes familiar with them. It includes creating initial codes of data. The codes introduce a feature of data which is interesting for the analysts. The coded data are different from the thematic analysis units. Coding can be done manually or through software. If it's done manually, the data can be done by writing on a text which is going to be

analyzed or by using color pencils. The codes can be specified and they can be matched with the data extracts which show the codes. The important point in this process is that all data extracts are coded and ordered in forms of each code.

Stage 3: searching themes: this process includes categorizing different codes in potential thematic forms and ordering all coded data in forms of specific themes. In fact, the researcher starts his codes and considers how the different codes can be mixed in order to create a whole theme.

Stage 4: reviewing themes of stage 4 starts when the researcher created sets of themes and analyze them. This process includes two stages of reviewing and arranging themes. The first stage includes reviewing in coded sums level. In the second stage, the themes validity is considered in relation to data sets. If the theme's plan works well, then we can go to the next stage but if the plan does not correspond the data sets, the researcher should return and continue its coding till a satisfying theme plan is created. At the end of this stage, the researcher should be notified about the different themes, the way they are proper together and all the story that tells about the data.

Stage 5: defining the themes: the fifth process starts when we have a desirable plan of themes. The researcher defined themes for analysis and reviewed them again. Then, he/she analyzed the data. What nature the theme explains about is determined and it becomes clear that what aspect of data the theme has by defining and reviewing.

Stage 6: providing report: the sixth stage starts when the researcher does not have the tempered themes. This process includes final analysis and writing reports. The current research is applied in terms of goal and it's descriptive and it's a survey and descriptive type in terms of method.

#### 3.1 Statistical population

The statistical population includes sets of people, objects and etc. which are at least common in an attribution (Kiakajoori, 2010\_).

The statistical population of the research: expert's population (those work in tourism realm in Shiraz) is used and they are selected through snow ball sampling method.

#### 3.2 Sample

The sample is sets of signs which are selected from a bigger part, a group or a population in a way that it introduces the properties of that bigger part, group or population (the same source).

The sampling method the snowball sampling to the point of information saturation

#### 3.3 The instruments used for data collection

Questionnaire is the most prevalent method used for data collection in survey typed research.

A questionnaire created by SWOT method is used in the present research.

1. Studying the resources and interviewing the experts are used for data collection (if necessary).
2. The interview is used by considering the following properties:
  - a. The university experts in the field of tourism or other fields who published a paper related to tourism.
  - b. The M.A graduators in tourism organization with at least 5 years experiences in this work
  - c. PhD students of Tourism

### 3.4 Validity and reliability

Validity means that a measurement tool can assess the considerable feature. In other words, the concept of validity answer to this question: to what extent the measurement tool can assess the considered feature (Sarmad et al., 2006).

In the present research, in order to increase the validity of the questionnaire, the questionnaire was distributed among 30 experts and based on expert and instructor's suggestions about the questionnaire, the content validity of the questionnaire was confirmed.

### 3.5 The data analysis method and information

In order to analyze the data and to test the hypotheses, the qualitative thematic analysis method was used.

## 4 Defining the variables and keywords

### 4.1 Strategic planning

The strategic planning is an organized effort for using fundamental policies and works which shapes the activity's orientation of a system in an organized frame. The process of systematic planning is more ordered and cooperative way than other processes (Brison, 2002).

### 4.2 Sanction

Sanction can be defined as a punishment done by a country against another country in order to compensate prior unaccepted behavior.

Henry Benin and Robert Gilpin describe sanction as a manipulation of economic communications in order to achieve political goals that occurs to force the society to change the policy or its government by economic punishment.

The sanction is a collective and criminal action which requires diplomatic, economic or martial activities against a country that is conducted against the United Nations (Vesali, 2010).

### 4.3 Balanced score card (BSC)

In 1990, the BSC was initially introduced as a new method of analyzing performance and then as a tool for realizing strategy by Robert Kaplan, the professor of Harvard University and David Norton, the prominent consultant in USA. It's considered as a tool for achieving the organization's strategic goals.

### 4.4 Thematic analysis

The thematic analysis is a technique for analyzing and reporting the patterns in data. This technique describes the set of data in details and a simple way. However, it almost goes beyond and describes different aspects of the research. The qualitative approaches are very complex and the thematic analysis should be regarded as a fundamental technique for the qualitative analysis.

In the present research the data are collected by using questionnaire and interviewing with experts.

The interview method is done by considering following qualities:

- a. University instructors in tourism or other fields who have a scientific paper related to tourism.
- b. The M.A graduators in tourism organization with at least 5 years experiences in this work
- c. PhD students of Tourism

Although tourism cannot merely lead to the development of the country but the need of change and creating facilities for inhabitancy, relocating, other activities and development will gradually occur by entering the tourism in a country and in a long run, it will increase the facilities and installations. The tourism experts emphasized that there's a relationship between tourism, consistency and security. They believe that there's enough security in Iran for tourism but the main problem in attracting tourists is the lack of advertisement in Iran and the ill advertisement of other countries against Iran. The development of industry in each country shows its consistency of national security. The role and impact of tourism industry in the national security is in a way that the most developed countries prefer to focus on tourism industry despite having macro-economic resources; because, the presence of visitors and tourists in a country introduces that country as a secure center of tourism to the world other than economic development and cultural exchange. Today, the tourist activities are taken into consideration in less developed regions in Iran. The investors are persuaded to provide bank facilities and tax exemption in a way that up to 50% of the tax exemption is predicted for tourist activities in the fourth planning of social-economic development.

Shiraz is located in sou'wester of Iran with 40 kl length and a different width between 15 to 30 kl and 1267kl space. It's surrounded with high mountains as a firm wall which are strategically important in maintaining the city. Shiraz is the center of Fars which is geographically located in the center of province. The geographical features of Shiraz include: 33 degree and minute of eastern length, 36 degree and 29 minutes of northern length and height from sea is more than 1500 meter. Shiraz is the third city in Iran (after Tabriz (1908) and Tehran (1910)) in which municipal was established in 1917. Shiraz is the bright diamond of Iran and it's one of the most beautiful and famous cities of Iran. Shiraz composed of sets of civil history in the world and the heritor of Persian civilization and a sign of historical identity and the worthy share of Iran.

### 5 Data analysis using interviews

In the present research, the data were collected through interviewing with 10 experts who are familiar with strategic planning and 7 experts who are active in the realm of tourism in Shiraz. Conducting interviews started in 2014 and it was finished in June- July 2014. The questions were designed in two sections of analyzing the status quo and analyzing the differentiation Strategy.

The status quo questions analyzes the most important needs of foreign and native tourists, their qualities, the tourist management style and internal processes of the related organizations, the cooperation and familiarity of the role and effect of educational facilities inside the organizations, the budget required for them and finally the income resource of tourism.

The questions related to the differentiation strategy analyze the capacity of internal processes, learning plans, customer's needs and financial resources needed for realizing the differentiation strategy goals.

The time of interview lasts around 30 to 150 minutes and they were all noted, recorded and the key points were extracted for analysis. All of them were written and the thematic analysis was used to analyze the data.

In order to analyze easily based on coding rules, the codes received from each interviews were placed in table. In this table, the key points of data were extracted as a proposition and a distinctive code was specified for each. After comparing the codes, the items which point to a shared aspect of the phenomenon receive a concept and also some concepts are introduced in form of the main themes.

In this process, the key points of the interviews were offered in form of preposition. Each code is specialized for a preposition. For example, code (5.2) points to preposition 2 of the fifth interview and code (12.3) points to the preposition 3 of the 12<sup>th</sup> interview. It should be noted that the strategists were interviewed first and then the tourist experts were interviewed.

The second coding of concepts and themes

In this process, the initial codes are changed to secondary codes due to the frequency. It means, the initial codes with the same

concepts of remove or merge are categorized in a group. The concepts which were categorized in a domain form the final themes. In this section, the themes are divided into 17 sections based on the concept's frequency:

- a. Developing the micro and macro infrastructure of tourism industry
  - Theme of the information received from the current research for question 1

Table 1. The theme of information received from the current research for question 1

Row	What are the most important power points of tourism development in Shiraz?
1	The existence of attraction and potentials of national and international tourism
2	The group cooperation of employees in activities related to tourism
3	Believing in more entrepreneurship through developing tourism
4	The fame of historical and cultural tourism attraction of Shiraz
5	The environmental variety, environment attraction and the four seasons
6	Protecting historical, cultural and natural attractions after the years
7	Locating in important communicational ways
8	The cultural, social and ethnical variety and traditions

The theme of information received from the current research for question 2

Table 2. The theme of information received from the current research for question 2

Row	What are the most important weak points of tourism developments in Shiraz?
1	the low quality and quantity of service and lack of proper infrastructure
2	Lack of proper advertisement, awareness raising regarding the attractions
3	Lack of public transportation service in tourist areas
4	Lack of investment and cooperation in non-public section of tourism
5	The social insecurity for tourists
6	The season nature of tourism
7	The pollution and destruction of tourist centers

The information theme received from current study for question 3

Table 3. The information theme received from current study for question 3

Row	What are the most important weak points of tourism development?
1	Improving the facilities near the tourism attraction
2	The necessity of government in using unknown tourism capacities in Shiraz
3	Creating facilities in terms of visas for foreign tourists
4	Using the variable eco-tourist and historical attraction
5	Trying to maintain historical monuments as national identities
6	The government attraction toward investing on private section
7	The culture mutual interactions
8	Creating opportunity for private section investment
9	Proper opportunity for expert's suggestions
10	The high risk coefficient of earthquake in Shiraz

The information theme received from current study for question 4

Table 4. The information theme received from current study for question 4

Row	What are the most important weak points of tourism development?
1	The existence of bureaucracy, lack of presenting government's justification for tourism
2	The development of tourism and the growth of population and crime in the region
3	The unidimensional perspective toward tourism.
4	Inability and inefficacy of tourism organizations
5	The statistic increase of accidents in pathways of cities
6	Advertising against Iran and destructing minds in other countries
7	The lack of political consistency among neighbor countries
8	The development of tourism in foreign countries
9	The lack of clear logic regarding Iran's policies in international communications
10	The high risk coefficient of earthquake in Shiraz

The information theme received from the current research for the question 5

“Are the strategic planning of BSC proper for tourism during the sanction?”

In the current environment, the tourism industry should compete based on the information and its capacity for asset's exploitation is increasingly more important than organization's capacity for physical asset's exploitation. More evaluative systems of organization's performance are formed from financial goals which do not analyze strategic goals in a long run. Therefore, there's a gap between the strategy and its implementation. Creating an evaluative card which assesses the financial-

traditional criteria from customer's perspective, business internal processes, learning and growth is necessary. Moreover, 4 new processes related to long run strategic goals with the short run ones (performance criteria): changing or translating perspectives, impartation, business planning, feedback and training.

Figure 1 shows the relationship between the four BSCs approaches. Each approach is defined in forms of a key term.

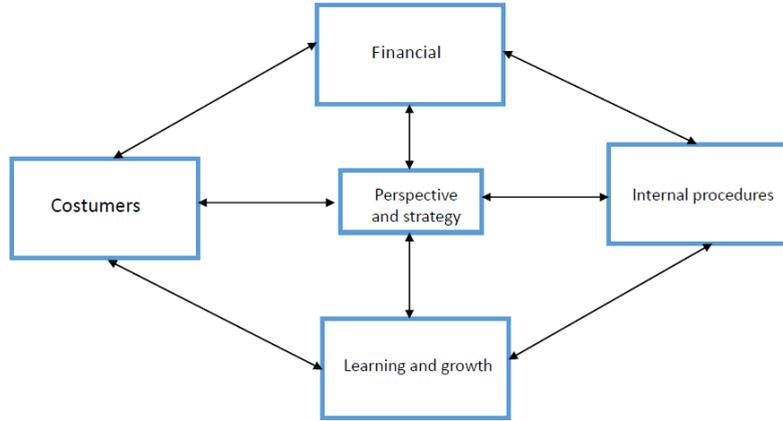


Figure 1: the relationship between the four approaches of BSCs

The criterion based on this perspective should relate the quality of the relationship between the high policymakers, the associate managers of cultural heritage organizations and tourism units. The senior managers should consider 4 procedures in designing BSC:

Business planning: integrating the business and financial planning of the industry.

Feedback and learning: analyzing the industry strategies in terms of current performances.

**6 Conclusion**

Figure 2 shows the interaction between this process and BSC.

Communication and impartation: letting the beneficiaries to impart their strategies to higher and lower levels of industry and their communications for personal goals.

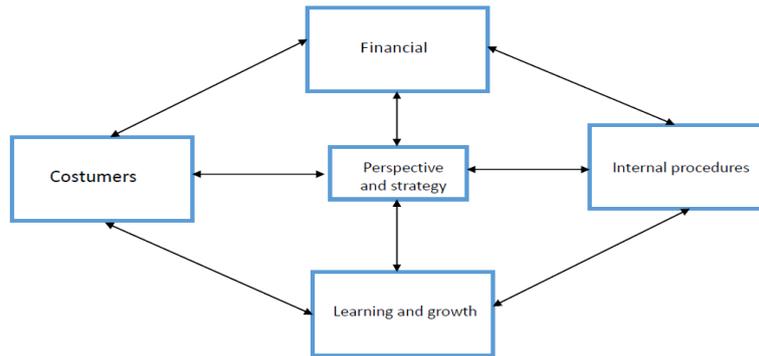


Figure 2: the management strategy: four processes

- Theme of the information received from the current research for question 6

“What points are emphasized in the comprehensive strategic planning of tourism based on BSC?”

Internal process: development of micro and macro infrastructure of tourism industry, editing and implementing comprehensive strategic plan of tourism industry, the effective interaction between different units of tourism industry, empowering human resource structure and developing meritocracy in tourism industry, establishing and editing the comprehensive rule of tourism, the accurate supervision toward the private section's violations, stabilizing the situation and improving the work condition of tourism industry.

As we can see in figure 3, financial aspect: taking tourism industry into consideration, the special support of the government, the private section's comprehensive support of tourism industry, internal, purposeful and efficient marketing.

Growth and learning: developing the professional perspective toward tourism industry, empowering and updating the educational system of tourism in Iran and updating the tourism industry with technology and new standards of the world,

Customer's perspective: developing tourist's host culture in national level, ease of stuffs such as visas and foreign tourist's inhabitancy, proper cost policies

empowering the international intimate relationship and presenting a good image of Iran.

They are taken into the consideration based on the extracted 17 themes.

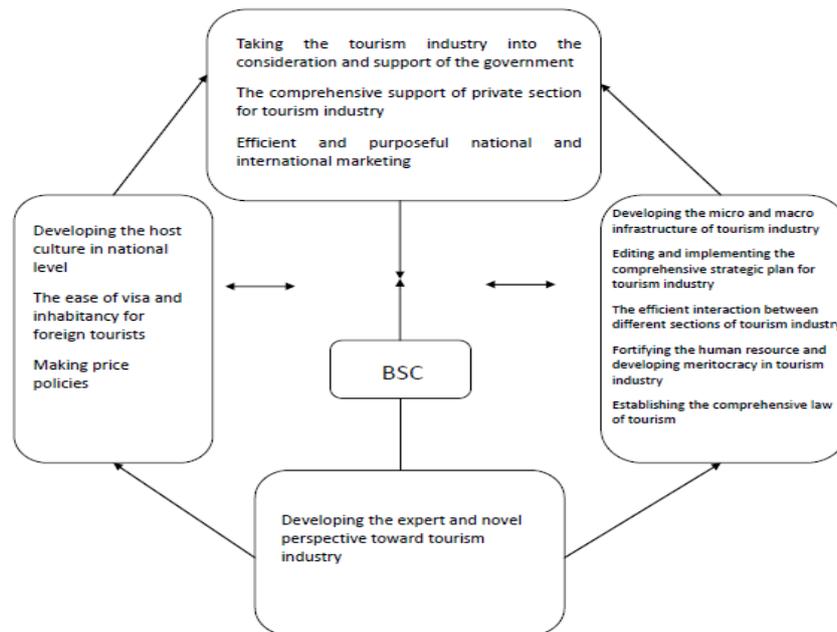


Figure 3: themes of comprehensive strategic planning of tourism attraction based on BSC

## 7 Suggestions

### Suggestions to tourism industry managers

- The complex models must be used in complex and competition environment of tourism industry. It means, the greater the complexity is (regarding the environment and system under the management), the greater the control complexity will be and based on the complexity in implementing the suggested model, this model is effective.
- Based on the results of the research, the present model is efficient regardless of difficulty in implementation and it's better than the simple models which are prevalent in tourism industry during the sanctions.
- The themes of the current interviews must be considered.
- 

### Suggestions for further research

- The present research was conducted in Shiraz. In order to increase the result's generalization, similar researches must be conducted in other cities and countries which have tourism attraction.
- Developing the model through grounded method.
- Based on the possibility of strategy planning (based on BSC in tourism industry), the feasibility of the research model is suggested to other researchers regarding the key industries during the sanctions.
- It's suggested that the key role of the government in the industry be studied specially in resolving the sanctions and presenting a good international image.

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Primary Paper Section: A

Secondary Paper Section: AE

## EXPLAINING THE RELATIONSHIP BETWEEN STRATEGIC DIRECTION AND CORPORATE PERFORMANCE, CASE STUDY: IRAN KHODRO COMPANY IN IRAN

<sup>A</sup>FATEMEH GERANBAHA, <sup>B\*</sup>SEYED ABDOLLAH SAJADY JAGHARGH

<sup>a</sup> Department of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran

<sup>b\*</sup> Assistant Professor, Department of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran

<sup>a</sup> Email: professional.program@yahoo.com

<sup>b</sup> Email: Asadjady@yahoo.com

**Abstract.** Strategic thinking creates motivation and commitment to the organization and its stakeholders. The motivation and commitment creates through the power in fact is simple and attractive. Manager's strategic thinking toward rapid learning of the business environment and the use of creativity to create new values engaged. The idea for the organization's survival and growth in today's competitive environment will be inevitable. Therefore, this study aimed to investigate the role of strategic direction to improve IKCO company performance is designed. The results of the study hypotheses based on the results of the Pearson correlation coefficient showed that in the univariate (correlation of each dimension of strategic orientation of the company's performance) all aspects of strategic orientation have a significant relationship via firm performance.

**Keywords:** Strategic direction, performance, innovation-oriented, competition-oriented, cost-oriented, employee-oriented, customer oriented, entrepreneurial oriented

### 1. Introduction

One of the most known and most widely used models of type of strategic relationship between strategic direction and performance of the company described, by Miles and Snow is provided. We live in a time when it is very changeable and complex undoubtedly, we need to continue nations and the human world that his weapons knowledge, expertise and knowledge, and above all they are a logical fit with our management. One of expertise led managers to assist organizations with the right strategic knowledge (Ansoff, 2002). As the first scientist who described the strategy as a comprehensive and meaningful. He believes that while the goals and activities of the organization is more consistent growth rate of development, will be larger and more regular. Managers must know what strategic thinking is and how this tool can be used for scoring goals. According to the environmental changes that have already taken a rapid pace and complexity of organizational decisions, the need to implement a comprehensive program to deal with these issues becomes more tangible than ever. It is not nothing but a strategic plan. Strategic management with dynamic mentality, forward-looking, holistic and contingency solution is

many things today's organizations. The foundations of strategic plans based on the understanding that managers from competing companies, markets, prices, raw material suppliers, distributors, governments, creditors, shareholders and customers who are located around the world and these factors are determinants of business success in today's world. After one of the most important tools for success in the future, organizations can benefit from "strategic plans". William Dirdon of Hershey's success and says his company considered strategic management ((life path is determined now by planning for long periods and no doubt that we are going in the future to rely on this process and to strengthen it.)) The aim of this study to know the relationship between strategic oriented on what affect the performance of IranKhodro Industrial Services Engineering company?

### 2. Research theoretical foundation

In today's dynamic environment, organizations gradually concluded that competitive advantage today for tomorrow's survival is not guaranteed. This will cause the pressure to impose organizations they learn how they can best improve their performance and their leading competitors. The strategic orientation of the company to use strategic guidelines for appropriate behavior refers to performance. Important aspect of this orientation can create shared values and behaviors within the organization noted. When this direction at all levels of the organization into an organization's culture will be expanded (slater et al., 2001). Performance should be defined as business results, because these results are the strongest relationship with the organization's strategic objectives, customer satisfaction and their economic participation (Bernadin et al., 1995). Three strategic directions that the researchers had the most attention to their work (Narver and Slater, 2005) and (Olsen et al., 2005) are: customer orientation, cost, rivals. It is based on a thorough review of the research literature on the six sides that include orientation, customer orientation, competitor-oriented, innovation-oriented, cost-oriented, employee-oriented, and entrepreneurial-oriented. Considering numerous studies conducted on factors affecting the performance of organizations but in the absence of strategic orientation of research are necessary (Morgan & Strong, 2003). According to the studies olson et al., (2005), the ultimate goal of superior performance in the long-term consolidation strategy based on this conceptual model was developed and is presented in Figure 1.

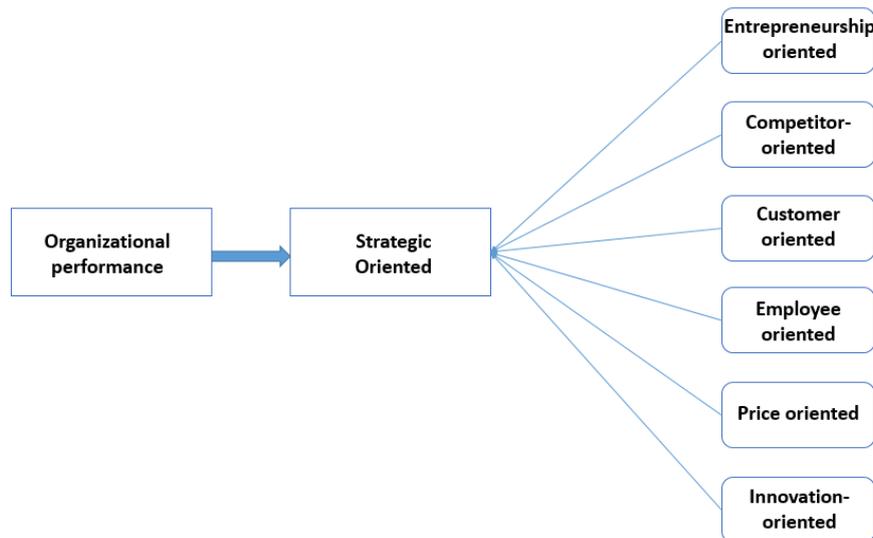


Figure 1. Research Conceptual Model

Based on the conceptual model, the study was designed to evaluate the following hypotheses:

- There is relationship between customer oriented and performance of Iran Khodro Industrial Engineering Services Company.
- There is relationship between employees oriented and performance of Iran Khodro Industrial Engineering Services Company.
- There is relationship between entrepreneurial oriented and performance of Iran Khodro Industrial Engineering Services Company.
- There is relationship between cost oriented and performance of Iran Khodro Industrial Engineering Services Company.
- There is relationship between competitor oriented and performance of Iran Khodro Industrial Engineering Services Company.
- There is relationship between innovation oriented and performance of Iran Khodro Industrial Engineering Services Company.

### 3. Research methodology

This study, descriptive and relational and in term of purpose is applied research. The population of this research managers and employees of Iran Khodro Industrial Engineering Services Company. The number was 1368 people. Cochran formula to determine the sample size and sample consisted of 300 people was used. In this study, the main tool for data collection is required. The questionnaire (Slater, 2001) containing 22

questions related to strategic orientation and 6 components of cost-oriented, innovation-oriented, employee-oriented, cost-oriented, competition-oriented, entrepreneur-oriented evaluated and 7 questions on the performance of each component is 3 to 4 questions. Moreover, during the various stages of its reliability and validity were examined and approved. Cronbach's alpha coefficient for both scale and all its dimensions higher than 7.0 were obtained. Overall, 60.7% of the sample were male and 39.3% were female. Based on the results of studies 14.7% of the studied sample has an associate degree and a lower, 54% bachelor and 31.4% are Masters and PhD. In the sample of the 54.7% between 31 and 40 years of age, then 24% of the studied sample are between 30 years and younger; the age of the sample was examined in 22 years and maximum age is 60 years and the average age of the respondents in the sample is 36 years. 20% of respondents in the sample have less than 10 years of experience, 66% of respondents have between 10 and 20 years of experience, 4.6% of respondents have a history of serving more than 20 years. The standard deviation of the average work experience of respondents 9.77 and 5.67 is to analyze the data, SPSS-20 and AMOS-20 software was used. (Bernadin et al., 1995)

### 4. Findings

To investigate the hypothesis, the correlation coefficients between examined the relationship between strategic orientation and performance and then examine the conceptual model was discussed.

Table 1. Pearson correlation coefficients between the variables

Relationship	Correlation coefficient	significance level	Coefficient of determination	Hypothesis
Customer oriented $\leftrightarrow$ firm performance	0.49	0.000	0.24	First hypothesis
Employees oriented $\leftrightarrow$ firm performance	0.54	0.000	0.29	Second hypothesis
Entrepreneurial oriented $\leftrightarrow$ firm performance	0.31	0.000	0.09	Third hypothesis
Cost oriented $\leftrightarrow$ firm performance	0.26	0.001	0.05	Fourth hypothesis
Competitor oriented $\leftrightarrow$ firm performance	0.23	0.004	0.05	Fifth hypothesis
Innovation oriented $\leftrightarrow$ firm performance	0.27	0.001	0.07	Sixth hypothesis

As the results in Table 1 show that there is a significant relationship between customer oriented with performance such that 24% of the variance is explained by loyalty ( $r=0.49$ ;  $0.05 > P$ ). Thus, the first hypothesis is confirmed.

Based on the results obtained in relation to the second hypothesis, there is a significant relationship between employees oriented and performance, so that 29% of the variance is explained by employee orientation ( $r=0.54$ ,  $0.05 > P$ ).

The third hypothesis results of the survey also showed that there is a significant correlation between entrepreneurial oriented and performance and 9% of the variance can be explained by entrepreneurial oriented ( $r=0.31$ ;  $0.05 > P$ ).

The results of the fourth hypothesis, the research also showed that there are significant correlations between cost-oriented and performance and 5% of the variance can be explained by the cost oriented ( $r=0.26$ ;  $0.05 > P$ ).

The results of the study of the fifth competitor-oriented research showed that there is a significant correlation with performance and 5% of the variance is explained by competitor-oriented ( $r=0.23$ ;  $0.05 > P$ ).

After examining the correlation between different aspects of strategic direction at the same time to study the role of Amos structural equation modeling software was used. Figure 2 shows the results of the study show relationships in the conceptual model.

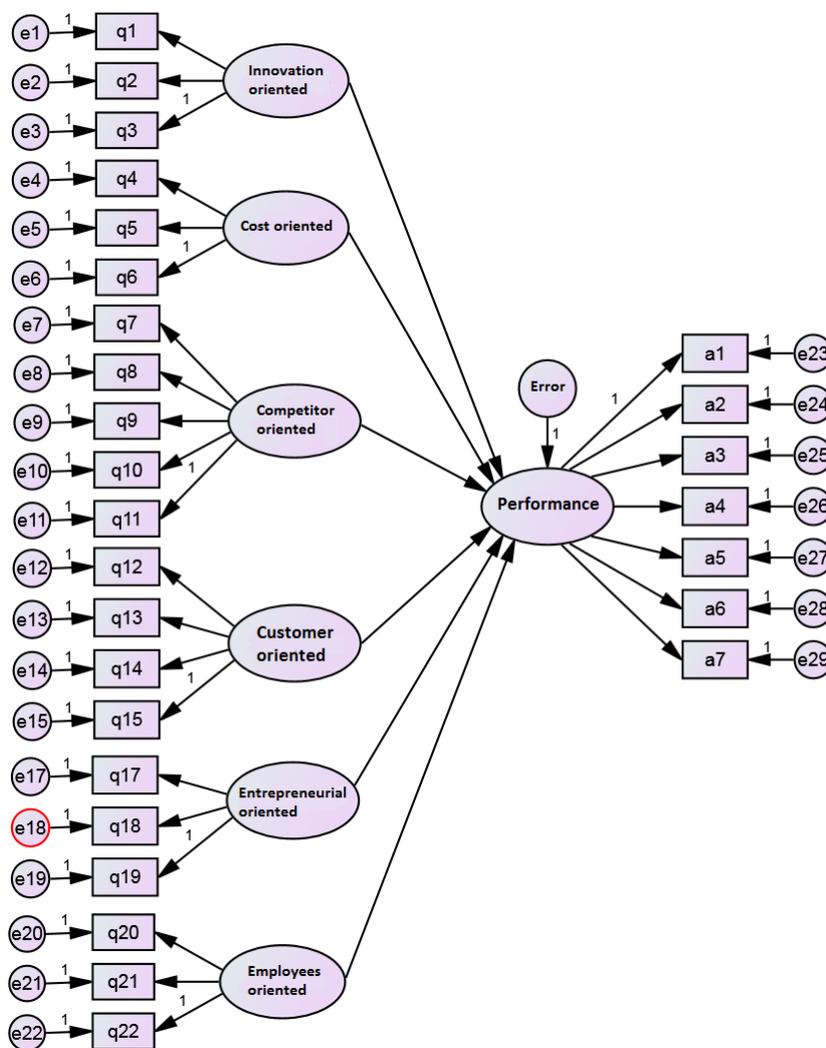


Figure 2. The overall indicators conceptual model and the final research model

Table 2 & Figure 2 shows the calculation of model parameters.

Table 2. Abstract indicators fitted to the model presented in Figure 2.

Fit indices	Absolute indicators			Comparative Indices		Parsimony indices	
	CMIN	DF	Sig	TLI	CFI	CMIN/DF	RMSEA
Limit	-	-	0.05 $\geq$	0.90 $\geq$	0.90 $\geq$	Less 5	0.08 $\leq$
The basic model (Figure 2)	1004.634	344	0.00	0.63	0.66	2.92	0.12
Revised model (Figure 3)	419.515	293	0.00	0.91	0.93	1.43	0.05

The results in Table 2 in term of static between proposed pattern of conceptual model with relationships pattern based on the data collected, there have been significant levels of difference (0.05> P). The RMSEA value outside the limit (0.08 <RMSEA) as well as the values of CFI; TLI is outside the limit. However, in general, the model suggests have the sole indicator DF: 5> DF. Proposed indicators AMOS software was used to develop a conceptual model and index based on the theory that there was a possibility of building relationships, were included in the model. In the conceptual model, none of the indicators except for the chi-square goodness-normalized level is not allowed and so need

to reform model. Modified conceptual model involves the removal of non-significant relationships in addition, statistically significant relationships and also added that, with the underlying theoretical foundations, respectively. Survey Estimates and the proposed amendments indices showed Amos software, at the same time review all aspects of strategic direction, some factors are not directly significant effect on IKCO company performance; so with the use of corrective measures as well as the theoretical foundations of the model of Figure 2 were modified. The results of the model parameters modified in Table 2 show that after

correction model, revised model fit indices were at a satisfactory level generally be considered. Figure 3 the results show that the modified model based on these proposals.

As the results in Table 3 also show a modified version of the Model 2 had a better fitness.

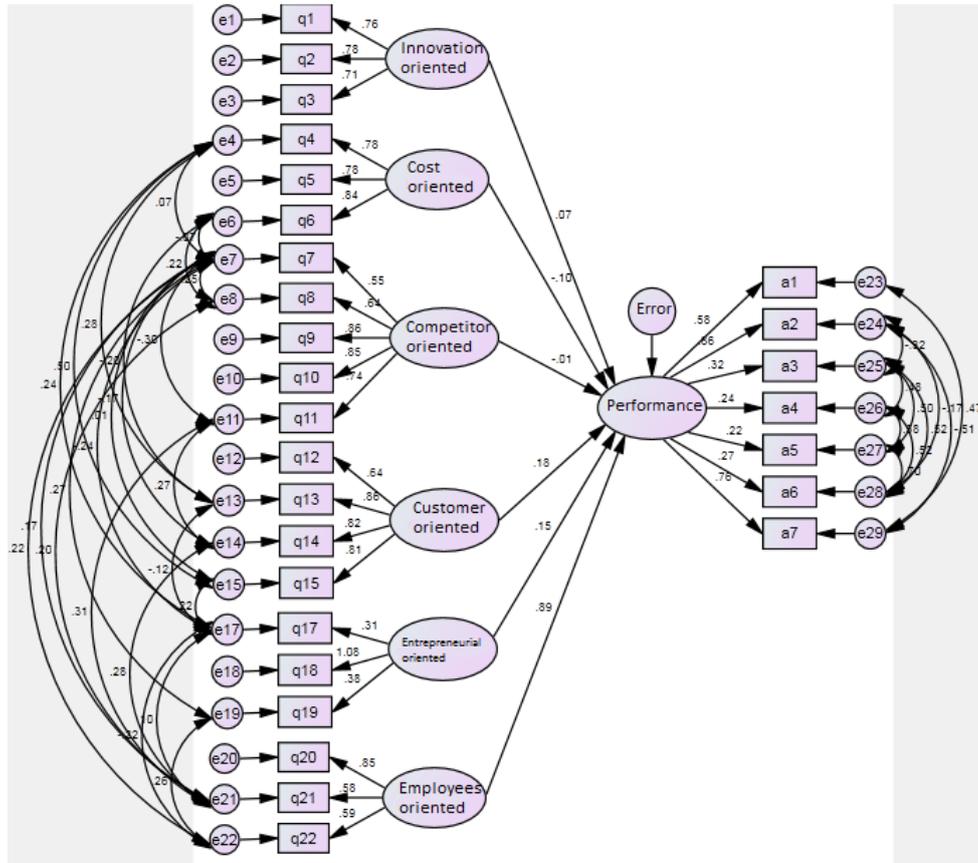


Figure 3 Modified model

As Figure 3 shows, the coefficients between the levels are very weak to strong. In Table 3, the results of the present study were to estimate the model's parameters.

Table 3: Summary of results of significantly improved relations between the variables in the model study

	Parameter	Estimated non-standard	Significant	Estimates Standard
1	Innovation oriented ← firm performance	0.07	0.21	0.07
2	Cost oriented ← firm performance	-0.08	0.08	-0.10
3	Competitor oriented ← firm performance	0.01	0.85	-0.01
4	Customer oriented ← firm performance	0.14	0.00	0.18
5	Entrepreneurial oriented ← firm performance	0.21	0.01	0.15
6	Employees oriented ← firm performance	0.74	0.00	0.89

Estimates in Table 3 standard, non-standard and the significant level of relationships between variables in the modified model proposed research; as can be seen from the study, the role of innovation-oriented, cost-oriented and competitor-oriented on corporate performance, no statistically significant, but the role of entrepreneurship-oriented, customer oriented and employee-oriented on firm performance is significant. Moreover,

employee oriented has the highest role in the performance of the company. Thus, according to statistical insignificance of the three dimensions of innovation-oriented, cost-oriented and competitor-oriented research on corporate performance in the final version omitted these three dimensions and so the final research model with the three strategic orientations affecting the company's performance in the form of 4 and the results of the estimation parameters are presented in Table 4 & figure4.

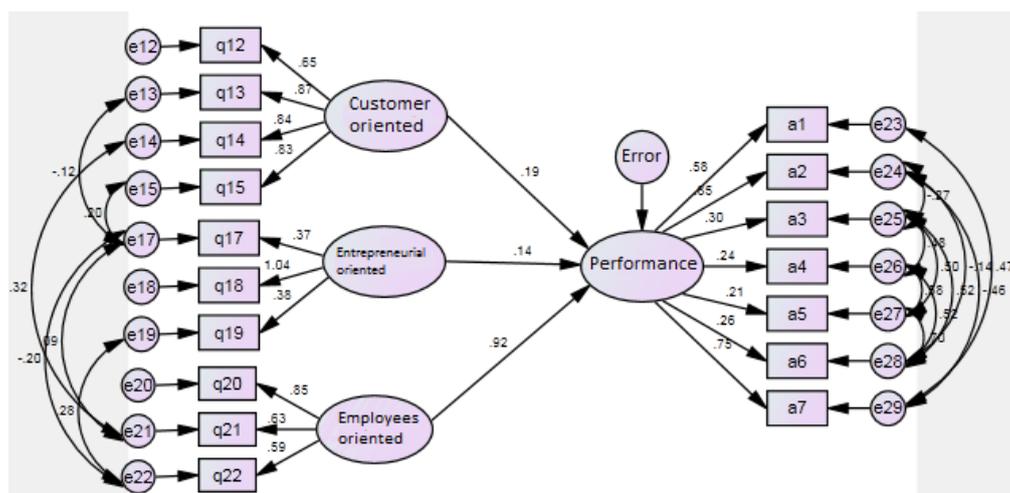


Figure 4: The final research model

Table 4: Summary of significant relationships between variables in the final model study results

	Parameter	Estimates Standard	Significant	Estimates Standard
4	Customer oriented $\leftrightarrow$ firm performance	0.13	0.00	0.18
5	Entrepreneurial oriented $\leftrightarrow$ firm performance	0.19	0.03	0.13
6	Employees oriented $\leftrightarrow$ firm performance	0.76	0.00	0.92

As seen in Table 4 from the perspective of the company's employees IKCO, the highest among its six aspects of strategic orientation of the company's performance, respectively, related to employee orientation, customer oriented and entrepreneurial oriented with standardized coefficients 0.92, 0.18 and 0.13. Therefore, the simultaneous assessment of various aspects of strategic orientation, the results showed that the three dimensions of innovation-oriented, cost-oriented and competitor-oriented are no statistically significant.

## 5. Discussion and conclusion

This study aimed to investigate the role of the relationship between strategic direction and performance of the Iran Khodro industrial service engineering company was done. The results of the research showed that among the four components of crisis management, loyalty to the highest level of correlation with the results of the strategic orientation of all sizes were correlated with corporate performance 99% confidence level and so the hypothesis is confirmed.

The results showed that the highest correlation relationship with the company's performance and employees oriented and then the relationship with the company's performance is customer orientation. The results showed the coefficient of determination and employee oriented and customer oriented 0.29 and 0.24 respectively. It explain the variance in performance. After entrepreneurship oriented 0.09 and innovation-oriented 0.07, explain the variance in corporate performance. Finally, the results showed that among the various dimensions of strategic direction, each competitor-oriented integration costs and performance are only able to account for the variance 0.05. The purpose that was drawn based on the relationship between the predictor variables and criteria, in the same study showed that not all factors IKCO contribute directly to company performance. The results of this study showed that not all of the factors noted in a level, but they are in a hierarchy of predictive and criterion variables. Specific basis, these results showed that employees of IKCO, among the highest of the six strategic orientation of the company's performance, respectively, related to employee oriented, customer-oriented and entrepreneurial oriented with standardized coefficients 0.92, 0.18 and 0.13. So the simultaneous assessment of various aspects of strategic orientation, the results showed that the three dimensions of

innovation-oriented, no statistically significant are cost-oriented and competitor-oriented. Therefore, due to the lack of a statistically significant role in the three dimensions of innovation-oriented, cost oriented and competitor-oriented research on corporate performance in the final version omitted these three dimensions. Finally, based on the results of this study, more attention to the strategic direction of the company and the strategy and target, the company's reminded of this orientation in life has been an example in the Middle East and vision of the company is to achieve the same goal. Moreover, suggested that the lack of a culture of strategic or parts of the company trimmed its special attention. As well as ways, to strengthen the monitoring and analysis of internal and external enterprise systems addressed

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Primary Paper Section: A

Secondary Paper Section: AE

## EXAMINING THE STOCK INSURANCE IN THE STOCK EXCHANGE "TEHRAN"

<sup>a</sup>MEHDI NAJAFI, <sup>b</sup>SAEED SHIRZADI, <sup>c</sup>ELMIRA NAJI AMIRNEZHAD

<sup>a</sup>Assistant Professor of Financial Management in Tehran University

<sup>b</sup>Assistant Professor of Financial Management in Tehran University

<sup>c</sup>Master of Financial Management in Tehran University Kish International Campus

Email: <sup>a</sup>Najafi100@gmail.com, <sup>b</sup>S.shirzadi@yahoo.com, <sup>c</sup>Elmiraamirnezhad@yahoo.com

**Abstract.** This study was done for the purpose of examining the stock insurance in capital market of Iran. The biggest problem which is existent in the capital market is the people's lack of confidence toward stockholding. Basic and fundamental measures and evolutions should be done for the purpose of removing this problem to develop more this market and obtain stockholders' confidence toward this market. The samples of this study were selected randomly from the experts of the capital market. Also, the return of 30 great stocks was compared with a loss coefficient of 16 insurance fields during the years of 2009 to 2012. The results of this study showed that a design of an instrument in a stock insurance will attract economic activists' pay attention toward this instrument and prepare insurance companies with the stock insurance design.

**Keywords:** Derivative Stocks (subordinate option securities), Insurance, Return, Risk, Stock Insurance

### 1 Introduction

Investors are always worried about the ventures of a capital market. These ventures make the capital markets of the world introduce the ways of risk management and make institutes and different tools for the purpose of removing this kind of risk. Various financial tools of a stock exchange are very effective in attracting most of the people toward a capital market. This affair will lead to the stock exchange's growth and stabilization. Therefore, stock exchange has a stable position in the economics. This study is an attempt to study the role of insurance companies as a money supporter. Therefore, the stockholders' interests will be preserved and a capital market will be converted to a secure place. One of the major achievements of world capital markets was to attract people's pay attention toward a capital market through making a secure place for people. Economic and non-economic developments which require adequate mechanisms for the development of risk taking will affect the capital market variations. Insurance companies will ensure people to study the situation of companies in the stock exchange. Also, they will attract people's trust toward investing in a capital market through supporting the companies' stocks.

With the setting up a stock exchange organization in Tehran, the share holders' rights specially, the stockholders' rights who were under the danger of systematic risks were preserved. Measurements such as giving consultants to people were done in this domain. Most people do not like to invest in a capital market due to the risks resulting from the variations in stock prices. A risk of stock price variations will make people not to invest in the capital market. Therefore, insurance as one part of financial industry should make a correct mutual relationship with the capital market. On one hand, an efficient capital market is needed to develop the insurance activities. On the other hand, insurance has an important role on the growth of capital market. To make a stable mutual relationship, a capital market should be developed and new tools should be made based on the insurance design of stocks. The most important purpose of this study is to minimize the risks of stock price variations by insurance companies. In fact, insurance companies support people against the loss of some assets such as car, buildings, and stocks. The amount of money that insurance companies pay people is related to the loss of stockholders. Therefore, the stock price should be calculated if one person insured his or her stock during the last

four years. In this study, the amount of stock loss can be compared with the amount of firing loss, and other events.

### 2 Theoretical background

#### 2.1 Stock exchange

It is one kind of market for transacting financial instruments which companies and institutes would participate in if all the necessary conditions were obtained. Therefore, some part of financial capital can be obtained by insurance companies.

#### 2.2 Insurance Contract

Based on the article 1 of Iran insurance law, insurance contract is a kind of contract that insurance companies are responsible against people who insure their assets. Therefore, insurance companies should compensate or pay people's loss at the time of occurring an event. The liable companies are insurers and the people who insure their assets in the insurance companies are called the insured and the amount of money which will be paid by people to the insurance companies is called an insurance premium and a thing which will be insured is called an insurance subject.

#### 2.3 Risk

Risk is considered as possible negative variations of economic efficiency in the future.

#### 2.4 Portfolio insurance

Portfolio insurance is one kind of applied method for removing the risk of investments in stock exchange. This method is good for investors who like to invest on risky assets and cannot tolerate its loss. Since an expected interest of these kinds of assets is high, most people like to invest in these kinds of assets.

#### 2.5 Derivative Securities

In recent years, various financial instruments were designed and presented to the financial markets. The purpose of designing these kinds of instruments is to control the investing risk of portfolio instruments and increase the efficiency of a capital market. Various securities should be presented with different risks and returns. Two sample of these kinds of derivative securities are option contract and future contracts. These kinds of securities are transacted in large amount in all the world financial markets.

#### 2.6 Subordinated Option Bonds in the Stock Market of Iran

After the approval of subordinated option bonds in the stock market, modified instructions were performed by the board of directors on June 2013 for the stocks of accepted companies in Tehran stock exchange to support the investors and decrease the risk of this kind of investment. Subordinated option bonds are one kind of option contract which a buyer can sell a certain amount of stocks based on the specified price of announcement.

### 3 Theoretical framework of the research

Abdo Tabrizi studied the effect of insurance industry on the global capital markets. With regard to the globalization of an insurance industry, insurance convergence, and a capital market, major trends were used in the insurance industry. A researcher introduced briefly new products which were in relation with a capital market. In this study, risk transfer, derivative tools, and their conversions to securities were regarded. Rahmani (2001) studied the economic role of insurance on the relationship between a risk transfer and a capital market. Also, he studied the role of insurance as a risk transfer mechanism, saving tool, and a

capital market developer. A researcher reached to this conclusion that there were financial risks such as inadequate variations in the foreign exchange rates, product prices, and interest rates. Companies can decrease the effect of financial risks through protecting the financial derivatives (Subordinated securities). KadKhodae (2001) studied the insurance role as an assurance base in all the markets such as a financial market. In financial markets of Iran which money and capital markets are developed a lot, these two markets cannot be expanded without the development of insurance market. A practical strategy is to investigate the role of insurance more accurately in a national market and use the advanced insurance tools. Making specialized insurances in the domain of financial markets such as deposit insurance, stock insurance, debt insurance, and insurance of other financial materials will lead to the development of money and capital markets. Dr. Hoshmand and Tashakori Saleh studied the risk reduction possibility of stock purchasing in a stock market with the insurance contracts on their article which its topic was the role of insurance industry in reducing the risk of investing in the stock market. He gathered the data from the questionnaires he distributed among present stockholders of Mashhad stock exchange. He reached to this conclusion from the statistical analysis that the stockholders were willing to insure their stocks and believed that the interference of an insurance industry in the capital market can increase the amount of investments. Aminian and Asadi (2012) calculated a final insurance rate for each of the examined funds under the study of the mechanisms designed to provide insurance services for the joint investment fund portfolio stock exchange with the traditional pricing methods of insurance contracts and measuring different risks of joint investment funds.

Test results shows that the insurance companies can enter this domain and make themselves and investors reach to a win-win situation. A thing that is discussed in most foreign studies of stock insurance is related to the portfolio insurance. Researchers examined constant proportion portfolio insurance (CPPI) and option based portfolio insurance (OBPI) methods a lot in the studies of stock insurance. Balder, Brandi, and Mahayni (2005) studied the efficiency of CPPI strategies under the time limitation of transactions and understood that if they use CPPI method more, their studies will be more valuable. CPPI and OBPI methods were compared by different researchers. Researchers such as Bratrand and Prignet (2002) compared CPPI and OBPI methods in their study which its name was portfolio insurance strategies.

#### 4 Research questions

- 1) Is it possible to design a stock insurance tool in a capital market?
- 2) Do economic activists agree with the stock insurance tools?
- 3) Can insurance industry perform the plan of stock insurance?

$$n = \frac{NZ\alpha^2 p(1-p)}{\epsilon^2(N-1) + Z\alpha^2 p(1-p)} \quad n = \frac{(145 \times (1/96)^2 \times 0.5 \times 0.5)}{144 \times 0.05 \times 0.05 + (1/96)^2 \times 0.5 \times 0.5} = 106 \quad (1)$$

The data were gathered for the first and second research questions through a field method and a questionnaire. Therefore, the questionnaires were distributed among the experts of a capital market. Also, the necessary data for the third research question were gathered from existent information in the codal.ir, seba.ir.

A research methodology is consisted of rules, instruments, valid and systemic methods for the purpose of studying the facts, discovering fabulous things, and reaching a solution. The present study is applied. Applied studies are kind of studies which are done based on the information of fundamental studies and used for satisfying the human necessities. This study was descriptive because it was done based on the theoretical backgrounds and a questionnaire. With the use of past studies, quantitative data of 30 great stock exchange were gathered for measuring the stock return of 2009 to 2012 and extracting the number of insurance majors during the mentioned years. In general, this study is quantitative and descriptive. The statistical population of this study is included of two groups with regard to the research questions.

- 1) Statistical population of first and second research questions: All the experts of capital markets such as the managers of the brokerage firms accepted in the stock exchange, the managers of the investment companies accepted in the stock exchange, The managers of the investment companies, the managers of the portfolio companies accepted in the stock exchange, and the investment consultants accepted in the stock exchange. Since accessing to all the experts of a capital market was not possible, the statistical sample of this study was selected from the experts of 107 brokerage firms which were active in the stock exchange and 16 public investment companies accepted in the stock exchange, eight investment companies, five portfolio companies, and nine consulting investment companies. In sum, 145 companies were selected in this study.
- 2) Statistical population of the third research question: In this study, 30 great companies of stock market and the performance of insurance industry in 16 things along with their loss coefficients were considered. Therefore, the following criteria were regarded for the purpose of selecting big companies.

In this study, the companies which were only the members of the stock exchange during 2009 to 2012 were considered. Since it is possible to access to the announcements such as the decision of annual general assemblies in relation to the profit division and the decision of extraordinary general assemblies in relation to the investment increase during the mentioned years in www.codal.ir, the stock returns of companies can be calculated. Also, the capital of each of these companies during the mentioned years was at least 200,000 milliard rial. Data was gathered randomly from the mentioned companies for the first and second research questions. Also, the statistical population of the study was calculated for identifying the sample of the third research question.

#### 5 Research method

The sample size of this study was identified with Charles Cockran's formula.

After identifying a validity and reliability of a questionnaire in the frame of a field method, a researcher gathered primary information with that questionnaire which was consisted of 20 questions. Also, in this questionnaire, two dimensions were studied (Table 1).

Table 1. Questionnaire dimensions

Number	Questionnaire Dimensions	The Number of Questions
1	A design of stock insurance tools	11
2	Economic activists' agreement with the stock insurance tools	9

In this study, a researcher used a questionnaire which was consisted of five options to measure the main variables of Likert scale. Also, descriptive and inferential statistics were used in this study for analyzing the data. Therefore, the results of the questionnaire were analyzed with the test validity and reliability, Kolmogorov–Smirnov test, and one sample t-student test.

The validity of the Questionnaire: The validity of the questionnaire was identified by some professors and experts of financial markets. Then, the final modifications were done for the improvement of the questionnaire.

The Reliability of the Questionnaire: In this study, the reliability of the questionnaire was measured with Cronbach's alpha. In the present study, a questionnaire which was consisted of 15 questions was designed. Then the coefficient of Cronbach's alpha was obtained for the two dimensions of the questionnaire. The coefficient amount of Cronbach's alpha was identified 0.768 for the design of the stock insurance tool and 0.786 for the economic activists' agreement of stock insurance tools. Also, the coefficient amount of Cronbach's alpha was calculated 0.809. Therefore, all the coefficient amounts of Cronbach's alpha were suitable and acceptable. Next, the reliability of the questionnaire was confirmed. Finally, the statistical data of the study which were gathered with SPSS 21 and Excel 2010 were processed.

The Sample of the Study: In the present study, a questionnaire which was consisted of questions about the individual features of the participants was designed. Therefore, the individual features of the participants are as follows:

- 1) Participants' age: Most participants (%48) were 20 to 29 years old. Also, 43 percent of participants were 30 to 39 years old. Nine percent of participants were 40 and more than 40 years old.
- 2) Educational Level of Participants: 66 percent of participants had a master of art and 14 percent of participants had PHD and more than PHD. Also, 20 percent of participants had bachelor of art.
- 3) Participants' experience in the capital market: 59 percent of participants worked in the capital market between 1 to 10 years. Also, 39 percent of participants worked in the capital market of Iran between 10 to 19 years. Only two percent of participants worked in the capital market more than 20 years.

Normality Test: In this study, a Kolmogorov–Smirnov test was used for normalization of variables such as the design of a stock insurance tool and the economic activists' agreement of stock insurance tools. The results of this test are shown in the table 2.

Table 2. Kolmogorov–Smirnov test results

A Kolmogorov–Smirnov test	The Amount of the Test	Freedom Degree	P-value
A design of stock insurance tools	0.079	106	0.105
Economic activists' agreement with the stock insurance tools	0.085	106	0.060

As it is observed from the above table, p-value is more than 0.05. Therefore, the variables such as the design of the stock insurance tools and economic activists' agreement with the stock insurance tools are normal.

The results of one sample t-test for the first research question show that p-value is less than 0.05 and is equal to 0.001. Also, a mean of stock insurance tool designs is 3.1. Therefore, a zero assumption will be rejected in the significant level of 0.05 and will be stated with 95 percent that it is possible to design stock insurance tools in the capital market. Also, the results of one sample t-test for the second research question show that the amount of economic activists' agreement with the stock insurance tools is about 3.8. In the above test, p-value is less than 0.05. Also, a zero assumption in the significant level of five percent will be rejected. Therefore, it can be stated with a confidence level of 95 percent that economic activist agrees with the stock insurance tools. The third research question results showed that the mean of the stock return was 0.548 based on the information of total return of 30 great stocks of stock exchange during the years of 2009 to 2012. Then, the results of this study were compared with the loss coefficient of 16 insurance fields. The test results showed that p-value is more than 0.05 for insurance fields such as engineering, responsibility, credit, Life span, automobile, and other kinds of insurance.

It means that there is not a significant difference between the mean of the total return of stocks and the mean of the loss coefficients of some insurance fields at the error level of 0.05. In other words, a mean of the total return of stocks is approximately equal to the mean of loss coefficient of some insurance fields such as engineering, responsibility, credit, life span, automobile, and other kinds of insurance. P-value is less than 0.05 for some insurance fields such as events, airplane, firing, transportation, money, petroleum, energy, and driving events. Also, the mean of coefficient loss of these kinds of fields is smaller than the mean of the total return of stocks which is 0.548. In other words, a mean of a total return of stocks is bigger than the coefficient loss of some insurance fields such as events, airplane, firing, transportation, money, petroleum, energy, and driving events. Therefore, it can be observed from the comparison of this study and 16 insurance fields that the mean of the total return of the stocks is bigger or equal to the loss coefficient of 13 insurance fields. Therefore, it can be answered to the third research question with a confidence level of 95 percent.

Table 3. Results of t-test

Number	The Insurance Fields	The Coefficient Loss	The Amount of Insurance	The Degree of Freedom	P-Value
1	Firing	0.31	2.604	119	0.010
2	Transportation	0.29	2.822	119	0.006
3	Events	0.33	2.385	119	0.019
4	Treatment	1.13	-6.364	119	0.000
5	Ship	1.12	-6.255	119	0.000

6	Airplane	0.35	2.166	119	0.032
7	Engineering	0.46	0.936	119	0.337
8	Money	0.21	3.697	119	0.000
9	Responsibility	0.53	0.198	119	0.844
10	Credit	0.44	1.182	119	0.240
11	Petroleum and Energy	0.17	4.135	119	0.000
12	Life Span	0.66	-1.224	119	0.223
13	Third Party Insurance	0.90	-3.849	119	0.000
14	Driving Events	0.31	2.604	119	0.010
15	Automobile	0.66	-1.224	119	0.223
16	Other Kinds of Insurance	0.45	1.072	119	0.286
			Mean	Standard Deviation	
The Total Returns of Stocks			0.548	1.002	

### 5.1 The Overall Results of the Study

This study shows that a risk of purchasing stocks through the insurance process of stocks can be controlled. In this study, one questionnaire was presented for the possibility of designing the insurance tools of the stocks and economic activists' agreement with insurance tools of stocks. Also, the stock returns of selected companies during the years of 2009 to 2012 were compared with the performance of 16 insurance fields for the purpose of measuring the readiness of insurance industry.

Therefore, the present study showed that it was possible to control the risk of purchasing stocks through the insurance process of stocks with the confirmation of research questions.

### 6 Conclusion

With regard to the results of this study, it is suggested that insurance companies do something for the stock insurance and consider it as a suitable opportunity for the development of insurance activities. Also, if insurance companies like to invest in the stock market, they will study the situation of accepted companies in the stock exchange for the purpose of controlling their risk of investment. Therefore, they should insure first the big firms of the capital market which are of the longer experiences and better management. These insurance companies should introduce these big companies to investors with insuring their stocks in order to make people's trust toward investing in the capital market. It is suggested that a central insurance of Iran and the private insurance firms study the stocks of big firms for the purpose of insuring them. Therefore, a scientific instruction should be codified and given to the board of assembly and association. It is suggested that the future researchers should study on the portfolio insurance without considering the sanctions and the political and economic situations of the country and consider many things for calculating the return of stocks. Therefore, insurance firms should do something toward identifying the fair insurance rate of stocks. It should be mentioned that future researchers should study the technical and structural dimension of portfolio insurance in the stock exchange.

From the structural and technical points of view, export forces, software, clearing house, transaction and ownership transfer are respectively necessary for the management of transactions, showing the transactions, recording, and designing and applying new financial tools.

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## THE ROLE OF VIRTUAL SOCIAL NETWORKS IN STUDENTS' LEARNING PROCESS

<sup>a</sup>FATEMEH BAJELAN <sup>b\*</sup>ALIREZA ARAGHIEH <sup>c</sup>NABI ASLANI

<sup>a</sup>*Department of Educational Administration, Islamic Azad University, Branch Islamshahr, Faculty of Educational and Psychology, Islamshahr, Iran*

<sup>b</sup>*Department of Educational Administration, Islamshahr Branch, Islamic Azad university, Islamshahr, Iran*

<sup>c</sup>*Department of Educational Administration, Islamic Azad University, Branch Islamshahr, Faculty of Educational and Psychology, Islamshahr, Iran*

Email: <sup>a</sup>fatemeh.bajelana@gmail.com, <sup>b</sup>Araghieh@iiu.ac.ir, <sup>c</sup>nabi.aslani.thd@gmail.com

**Abstract:** This study mainly aimed at examining the role of employing virtual social networks and the learning process of the girl students of the first grade of secondary school in Eslamshahr in 2015-2016. The statistical population included 390 students were selected as the statistical samples through random cluster sampling. The data were collected using the questionnaire for virtual social networks and the questionnaire for learning process. Reliabilities of the measuring tools using Cronbach's alpha were respectively reported 0.72 and 0.81. Pearson correlation coefficient, regression analysis, and ANOVA were used for data analysis. Research results indicated a significant and negative relationship between employing virtual networks and learning process of the girl students of the first grade of secondary school in Eslamshahr district.

**Keywords:** virtual networks, learning process, the first grade of secondary school, students

### 1 Introduction

Today, one of the factors considered by experts and scientists for the development and survival of each country is the use of new technologies in the field of education in general and educational achievement in particular. The issue has caused major changes in the learning nature of students and the optimal use of the capacity of technologies provides learning with a specific scope and enrichment (Afzalnia, 2008). Combining technology with class curriculum is the integral part of an appropriate teaching (Pierson, 2001); however, the use of technology as a tool for teaching and learning in a classroom should provide assignments, which develop data recovery for problem solving, promote deep processing of ideas, and increase engagement of a learner with curriculum and teacher-learner and learner-teacher interactions. Therefore, the use of the Internet and virtual networks has been developed extensively among children and adolescents nowadays. When today's generation of children reach the age of maturity, they become familiar with the devices introduced to market easily and equip themselves with the latest knowledge in proportion to knowledge advancement. Hence, the future generation is the generation, which grows up with the Internet and other modern communication technologies and depends on them strongly. This makes parents, managers, and planners of different cultural and training sectors attempt to find solutions for the negative consequences of such technologies, particularly the Internet (Bidi *et al.*, 2013).

Therefore, we are witnessing significant developments with the spread of mass media and emergence of virtual social network among young people in educational system. Today's students never have the previous limitation and they are connected to any point across the world and interact with the teachers and students out of school environment. The emergence of the Internet has affected learning process. E-learning is one of the new training methods, which is used for training. The positive aspects of social network sites (SNS2) and their usage are being revealed. At present, students use SNSs as an assistant for their education in teamwork (Zavaraki *et al.*, 2015). On the other hand, with an extensive access of students to the Internet and virtual networks, we are witnessing a kind of dependency on networks and virtual environments. This increases relations of individuals in the virtual world; in contrast, their relations in the real world reduce (Samson and Keen, 2005).

Reviewing the studies on national education process indicates that the educational growth and development has always been one of the fundamental discussions, which has gained attentions of education experts, scholars, and researchers. Obviously, educational achievement of students in an educational system depends on several factors such as the use the Internet and virtual social networks (Afganeh, 1998). Studies show that the first online social network "Six Degees.com" was created in 1997. Despite its success with 90 million users in late 90s, it terminated its activity in 2000. As an online social network such as Asian Avenue<sup>1</sup>, Black-plante<sup>2</sup>, and Livejournal<sup>3</sup>, it could not provide different combinations of technical features such as profiles, list of friends, visitors' log in its service. In 2001, the first business network was created with the emergence of Ryze<sup>4</sup>. This network established business relations between users and supported the communications. Finally, it was considered as a pattern for business networks. A few years later, it was converted into a sync network. Soon after, in 2002, the well-known Friendster network was established as a rival for the online profitable websites of Dating Online<sup>5</sup> Mag.com. Although Friendster was considered the greatest social network in the Internet by early 2004, it lost a large number of its users due to technical and social problems. For this reason, this network is called "one of the biggest losers in the world of the Internet". The early years were finally converted into a basis for the emergence of other online and popular social networks such as Myspace, Facebook, or Studivz, which have highlighted constantly the phenomenon of online social networks since 2003. Clay Shirky - a social software analyst - describes the growth and development of online social networks based on their early emergence using YASNS (Yet another Social Networking Service) term. Myspace network was established in America in 2003 and it has been known as the biggest and most famous networks in the world in music since then. Another network - Facebook - was emerged in 2004, which has had considerable achievements since then. It was designed and created by Mark Zuckerberg in Harvard University. Only Harvard University students were its audience at the beginning, but some steps were taken toward network development and it was converted into a global network (Mahmoudi *et al.*, 2014).

Social networks can be divided into two groups of *virtual social networks* and *non-virtual social networks*. Different definitions have been proposed for social networks. The major definition is that the social networks or Internet social network is a site or a series of sites, which allow users to share their interests, thoughts, and activities. The social networks have been developed with unparalleled speed in a short period during recent years. In fact, virtual social networks are a combination of the hardware and software tools, which allow individuals to exchange information in a convenient, instant, extensive, cheap, and confident manner. Specifically, the social networks allow accessing to the specific data related to different fields. In virtual social networks, individuals may present information (by placing some posts on blogs or other social networks) or obtain some information (the same).

Internet social networks, especially those with conventional and non-business applications, are some places in the virtual world in which individuals introduce themselves in brief and provide conditions to establish communications with like-minded people in different fields (Oftadeh, 2011). The opinion poll of USA Today in 1997 indicated that 86 percent of teachers believed that the Internet made students fail to do their assignments, as they spent more time on the Internet, web surfing or online games instead of doing their assignments. Another opinion poll « Kimberly Young » shows that 58% of the students who use the Internet and virtual networks

<sup>1</sup> AsianAvenue.com

<sup>2</sup> Black-plante.com

<sup>3</sup> Livejournal.com

<sup>4</sup> Ryze.com

<sup>5</sup> Dating Online

excessively are placed at risk of school failure. In conclusion, it can be stated simply that extravagance in any aspect of life requires underachievement in other aspects of life. *Excessive indulgence* in the glamorous world of the Internet and virtual world hinders and aborts other affairs of users. Evidently, they slip farther behind those who have normal lives, they move away from the everyday life and social life, and they can never play the role expected by family, friends, and society (Bidi et al., 2013). Thus, it is of paramount importance to realize if there is a relationship between the use of virtual social networks and students' learning process, which is discussed in this research. Therefore, this research mainly focuses on the extent learning processes are influenced by virtual social networks.

## 2 Methodology

### 2.1 Population, Sample, and Sampling Method

This is a descriptive correlational research, as it aimed to examine the role of employing virtual social networks with the learning process of the girl students at the first grade of the secondary school in Eslamshahr district. Research statistical population included all the girl students of the first grade of the secondary

school in Eslamshahr in 2015-2016 academic year (8600 students in 32 schools in 10 sections). Therefore, cluster random sampling and Morgan's table were used for selecting 390 students at grade one as the statistical samples among 13 secondary schools for girls.

### 2.2 Research Tools and Data Collection Method

Two standard questionnaires including A) the *questionnaire for virtual social networks* and B) the *questionnaire for learning process* comprising three sections of Introduction, Research Demographic Variables, and Research Questions were prepared for testing research hypotheses. The Weinstein learning process questionnaire comprises 10 components including anxiety, attitude (students' interest in school and continuing education), concentration, data processing, motivation (level of persistence), self-assessment (attempt to review and exam preparation), main idea selection (ability to realize the major points of a lesson), study, time management, and examinations (exam preparation). Reliability of the measurement tools was calculated using Cronbach's alpha. Reliability values for the questionnaire of virtual social networks and the questionnaire for learning process were 0.72 and 0.81, respectively.

## 3 Research Findings

Table 1. Frequency distribution and percentage of research sample for any visual social network

Statistical Index Virtual Social Network	Frequency	Percentage
Facebook	34	8.7
Viber	39	10
WhatsApp	38	9.7
Line	71	18.2
Telegram	90	23.1
Instagram	85	21.8
Bee Talk	33	8.5
Total	390	100

As Table 2 shows, students mostly use Telegram virtual social network (23.1%). The percentages for Instagram, Line, Viber,

WhatsApp, Facebook, and Bee Talk are 21.8%, 18.2%, 10%, 9.7%, 8.7%, and 8.5%, respectively.

Table 2. The descriptive statistics for research variables

Variables	Mean	SD	.Min	.Max
Application of Virtual Social Networks	72.08	12.89	30	92
Learning Process	180.71	54.88	88	322
Anxiety	26.80	5.86	10	36
Attitude	23.12	4.33	11	29
Concentration	22.23	6.66	11	37
Date Processing	23.66	5.86	14	35
Motivation	22.78	5.71	11	36
Self-assessment	20.16	5.46	10	36
Idea	20.68	5.11	9	30
Study	18.86	4.91	10	32
Time Management	17.56	4.71	10	34
Examinations	20.07	4.38	30	34

Table (2) indicates the mean, standard deviation, minimum, and maximum of the tests on the application of virtual social networks, learning process, and its subscales. Table (2) shows that the means of test for applying virtual social networks and learning process are 72.08 and 180.71, respectively. Among the subscales for the learning process, the maximum mean (26.80) was related to

anxiety and the minimum mean (17.56) was related to time management. Before discussing the research hypotheses and normality of the frequency distribution for research variables, the Kolmogorov-Smirnov test for goodness of fit was used for specifying its distribution.

Table 3. The Kolmogorov-Smirnov test based on normalization of data

Test	Quantity	Kolmogorov-Smirnov	Level of Significance
Application of Virtual Social Networks	390	0.95	0.32
Learning Process	390	0.92	0.36

The results of the Kolmogorov-Smirnov test indicate that the distribution of research variables was normal and the parametric statistics can be used for analysis assuming that the variable is within the interval scale.

Pearson correlation coefficient and multiple regression were used for examining the major hypothesis and minor hypotheses and the results are as follows:

Table 4. Pearson correlation coefficient test for the relationship between research variables (n=390)

Variables		Correlation Coefficient	Level of Significance		
Independent Variable	Dependent	-.131**	0.01		
Social Networks	Students' Concentration				
	Motivation			-0.27**	0.001
	Study			-0.155**	0.002
	Time Management			-0.124**	0.01
	Examinations			-0.188*	0.001
	Anxiety			0.04	0.34
	Attitude			0.06	0.18
	Self-assessment			0.06	0.17
	Processing			0.01	0.83
	Main Idea			0.064	0.20
Total	Learning Process	-0.164**	0.001		

The overall correlation coefficient in Table 4 shows that there is a negative significant relationship between the use of virtual social networks and the processes of students' concentration, motivation, study, time management, and examinations at the confidence level

of 0.001. Therefore, the higher the use of virtual social networks, the weaker is the learning process in students. Research results show no relationship between the use of virtual social networks and the processes of anxiety, attitude, self-assessment, and process.

Table 5. The results of regression analysis to predict the variable of learning processes

Independent Variable	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
Virtual Social Networks	0.164	0.027	0.024

The R<sup>2</sup> values in Table (5) show that the use of virtual social networks approximately clarifies 3 percent of the changes of learning process. The one-way ANOVA is used for regression

significance, i.e. to check whether the predictor variable (the use of virtual social networks) may be effective in predicting the variable of learning process criterion. The test results are provided in the following table.

Table 6. The one-way ANOVA for the predictor variable

Model		Sum of Squares	df	Mean of Squares	F	Level of Significance
1	Regression	31604.681	1	31604.681	10.75	0.001
	Error	1139995.155	388	2938.132		
	Total	1171599.836	389			

As Table (6) shows, the F (10.75) is significant at the level of 0.001 and the predictor variable plays a crucial and significant role in predicting learning process.

Table 7. The results for the regression coefficients of learning process

parameters				t	Level of Significance
	$\beta$	Error	Beta		
Constant Value	231.101	15.607		14.808	0.000
Use of Virtual Social Networks	0.699	0.213	-.164	3.280	0.001

Table (7) shows a negative and significant relationship between the use of virtual social networks and learning process. With respect to the coefficients in the table, it is possible to write the following regression equation for the criterion variable (learning process) as follows:

$$b_1x_{1+a} = \text{Constant value of } \hat{y} \quad (1)$$

Learning process = 231.101+0.69 (the use of virtual social networks)

#### 4 Discussion and Conclusion

The present research discusses the role of the use of virtual social networks and the learning process of the girl students of the first grade of secondary school in Eslamshahr district. Research results

proved that the correlation coefficient between the use of virtual social networks as the predictor variable and learning process (concentration, motivation, study, time management, and students' examinations) as a criterion is negative and significant with respect to the confidence level of 0.01. That is, the higher the use of virtual social networks, the weaker is the students' learning process. The univariate regression proved that use of virtual social networks is a negative and significant predictor of students' learning processes. The result is consistent with the studies of Abadi (2009), Javadinia et al., (2012), Hasanzadeh et al., (2012) and Hashemi (2009), Habibi (2015), Bolen and Harry (2000), Yong (1996), Young (1998), and Gustavmesh (2012). It is inconsistent with the studies of Kian, et al., (2015), Mansouri (2012), and Lokin et al., (2012). Based on the research results, it is recommended that parents allocate a short time for connection to the Internet as per a preplanned schedule to prevent it from influencing students' learning processes.

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## INVESTIGATING THE RELATIONSHIP BETWEEN MOTIVATIONAL POTENTIAL SCORE WITH JOB INVOLVEMENT IN PRIVATE AND PUBLIC BANKS OF PARS ABAD MOGHAN CITY

<sup>a</sup>ROBABEH SEYFI, <sup>b</sup>RAMIN MOUSAVI MOHAMMAD REZALOU

<sup>a</sup>Young Researchers and Elite Club, Germe Branch, Islamic Azad University, Germe, Iran

<sup>b</sup>Young Researchers and Elite Club, Germe Branch, Islamic Azad University, Germe, Iran

Email: <sup>a</sup>Robabeh.seyfi@yahoo.com,

<sup>b</sup>ramin.mousavi61@yahoo.com

**Abstract.** The current study aimed to investigate and study the relationship between the Motivational Potential score and Job involvement in banks of Pars Abad. The sample size of the study obtained via applying Cochran sampling formula which involved 155 participants. To analyze the study's hypothesis, Pearson's correlation coefficient, T-Test, and correlation of two independent societies were used. Results of data analysis indicated that: there was a significant relationship between motivational potential score and job involvement among staffs. There is no significant difference among public and private banks in dimensions of job's motivational potential score and job's involvement, and also in comparative study of variables of public and private banks there is no significant difference.

**Keywords:** Motivational Potential, Job involvement, job's motivational, public and private banks

### 1 Introduction

Banks as one of country's large organizations formed in order to serve community, play key role in development of the country, and this factor causes managers and staffs as a skilled and expert manpower in this section, be a key element which requires attention and research (Mousavi Mohammad Rezalou, 2015). Banks as a main economic resources play vital role in development and economic growth of a country, because they act as a provider of liquidity in services and manufacturer of information (Sofian & Habiballah, 2010), and play key role in the fostering of economic and social conditions of a country. Due to this issue that banks staff organize economic system, and play their role at public and private sectors as an economic core with mobilizing household savings; however the current study investigates the relationship between motivational potential score with Job involvement among staffs, and whether there is a relationship between jobs motivational potential score with job involvement? Why someone in the company with owning the same possibilities and benefits are active and motivated, but in the other hand why someone else with many problems are persistent? In which condition staffs use their maximum capacity to do their responsibility? Answering to such questions will be accessible by recognizing what factors motivate staffs. Consequently, with regarding the importance of subject in this domain, this study was conducted with the aim of recognizing effective factors on motivational potential score and job involvement among Pars Abad's private and public banks staff, in which on the basis of obtained results we steps towards suitable planning and increasing job motivation and staff's capability and also to achieve organizational goals. Job involvement recognized as one of the effective tools to increase staff's efficiency with increasing their participation and obligation. Organizations are facing with intense competitive pressure, to survive and develop in the changing and unstable business world. Therefore, organizations require energetic, active staffs which completely are involved in their jobs. Because, quality of human resources is vital for organization's success especially in unstable working conditions. Business partnership has a positive effect on staff's individual and organizational performances (Lu et al, 2014). Also job's motivation has been one of important effective factors in success or mustiness of system, and if we neglect it will waste organization's resources. Result of a study indicated that 20% effort and 80% motivation reported as a success factor in organizations, and nowadays managers' great challenge is facing with staffs which have low motivation and low responsibility (Bahadori et al, 2014). Recognizing causes and consequences of job involvement for managers of organization is important. Job

involvement has a positive effect on indicators of job's performance such as efficiency (Emery & Barker, 2007), job performance (Rottenberry & Moberg, 2007; Chugtai, 2008), job satisfaction (Zupiatis, et al., 2014; Linz, 2010), desertion (Zupiatis, et al., 2014; Wickramasinghe & Wickramasinghe, 2010; Lambert, 2010; Nancy & Kely, 2011), participation in decision-making (Siegel & Ruh, 1972; Ruh & Wood, 1975; Hollon & Gemmill, 1976), and organizational obligation (Zupiatis, et al., 2014; Karim, 2010; Ting, 2011; Iqbal Khan, et al., 2012). From the according to Lodhal and kejnjob involvement points to degree which persons psychologically identify themselves with their current job (Tastan & Turker, 2014). Lubakaya (2012) defined job involvement as person's belief toward his/her current job. He also stated that job partnership performs as a catalyst to meet individuals' needs. Khaled & Rahman (2011), described job involvement as a motivation for doing activity, and he knows very appropriate those individual and organizational objectives which causes motivation among staffs to reach production and creating positive business results. Job involvement is fulfillment of individuals cognitive needs, which helps him/her at harder work and his/her performance speed. In fact a higher degree of job involvement among participants of an organization in order to increase organizational effectiveness is necessary. Of the factors that create job involvement we can point to the job's characteristics, education, motivation, and staffs personality (Seyfi, 2015).

The main point in management of motivation is that we recognize that staffs are motivated with such tools, which they believe it's substantiation, and this substantiation can create motivation among staff s not by a managers promises but by required three conditions of motivation, such as self-confidence, confidence, and satisfaction via creating such an environment which those three conditions be reinforced. Motivational factors are divided into two categories: internal factors and external factors. In order to which managers motivate their staffs, at first they must recognize factors of their staffs dissatisfaction, and then in accordance with status of staffs, they select appropriate motivational factors (Naily, 2013). According to the model, motivation and job's satisfaction and job's characteristics such as skill variety, careers, importance of work, independence, and works feedback according to the job and work are related with one another (Oldham & Hakman, 2010). Above mentioned five central dimensions for creating a stock unit as a motivational potential score for a job can be combined (Yavarbum & kulpan, 2011). According to Malek (2010) motivation can improve performance of staffs, and motivation of staffs is away to return towards organization's development. According to David Man (1989) effective motivation causes increasing in output and decreasing in costs, and as a result profit increases (Navaz & Yasin, 2014). Therefore, in an overview we can claim that: Job's motivational potential score can be created when staffs feel job security and stability, partnership, effective role in organization and also there be a sense of freshness and vitality. Having job motivation in the direction of healthy motives is one of necessities in correct application of human resources.

Hackman and Oldham (1974, 1975) has been prescribed a method by detecting opportunities for calculating the overall rating based on the measured characteristics of an individual's career, Motivational Potential score (MPS) expression reflects the potential motivation of a job. Five variables of the main model can be seen as a work-related dependent variable (Skill variety, nature of work, importance of working) or related to management of the work (independence, feedback). Theoretical model forms a cross connection between the main components, in computing the overall motivational scores, average of work-related main variable was computed and then multiplied by the independence and then multiplied by the feedback scores (Figure.1). This relationship means that when each of the components is low has a remarkable effect on MPS scores,

therefore only maximum results can be achieved in which all the characteristics are maximum.

$$MPS = (\text{Skill variety} + \text{Task Identity} + \text{Task Significance}) \times \text{Feedback} \times \text{Autonomy} \quad (1)$$

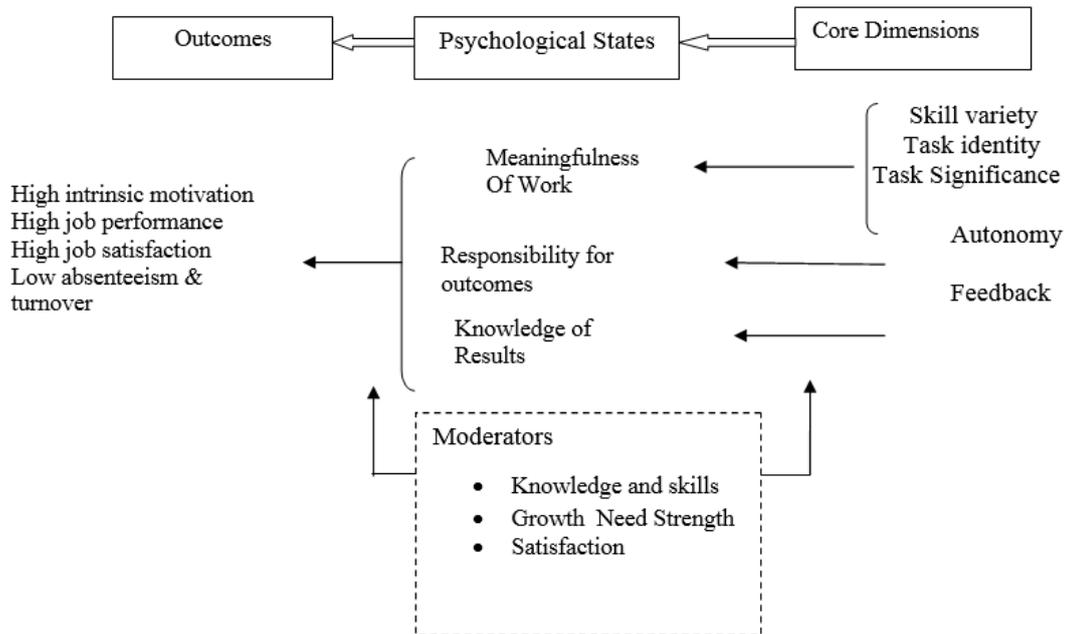


Figure 1. Job Characteristics Model (Hackman & Oldham, 1974)

**2 Research Methodology**

The current study is an applied research. Statistical society of this study includes Pars Abad's private and public banks staffs which their population is 260 participants. As regards, society consists of two private and public classes, Stratified random sampling method with applying Cochran formula conducted, and 155 participants was selected as samples for doing the study. In the current study for investigating motivational potential score Linda and Ann scale (199) was used. This scale consists of five dimensions in which it has 15 items, and different dimensions of

the motivational potential score which has 3 questions about Skill variety, 3 questions about the Task Identity, 3 questions about feedback from supervisor, 3 questions about Task Significance, and 3 questions measure the independence, subjects in a four options scale from 1 (completely incorrect) to 4 (completely correct) answer to each of items in overall scale and each of its dimensions get a score, therefore in overall scale maximum score is 4 and minimum score is 1. As well Meggins on and Clutter buck job involvement questionnaire (2006) with 20 questions was used.

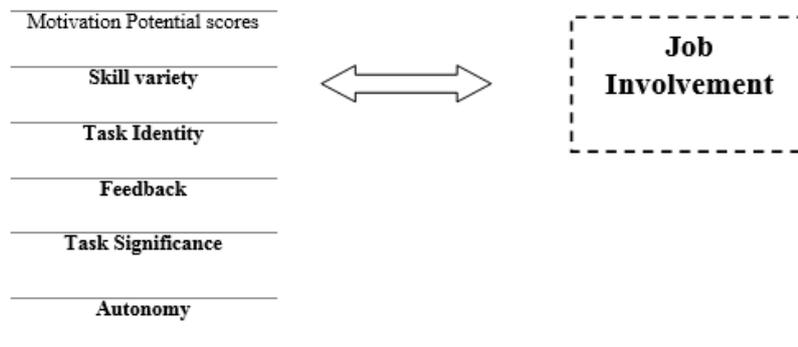


Figure 2: conceptual model

**2.1 Research Hypotheses**

1. There is a significant relationship between Motivational Potential Score and staffs Job involvement among public banks.
2. There is a significant relationship between Motivational Potential Score and staffs Job involvement among private banks.

3. There is a significant difference between private and public banks from the Motivational Potential score dimension.
4. There is a significant difference between private and public banks from the Job involvement dimension.

5. In comparative investigation between Motivational Potential Score and Job involvement among private and public banks there is a significant difference.

### 3 Results

In the current research to find out that the variable distribution is normal, Kolmogorov-Smirnov test was used. Result of this test is presented at table.1. The significance level greater than 0.05 represents the normal distribution of data. For all variables, because the level of significance is greater than 0.05, we can conclude that these variables are normal.

Table 1: One-Sample Kolmogorov-Smirnov Test

Variable	Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
<b>Motivation Potential scores</b>	1.062	0.326
<b>Job Involvement</b>	1.314	0.109

**The First Hypothesis: There is a significant relationship between Motivational Potential Score and Staffs Job involvement among public banks.**

Table 2. The correlation coefficient test dimension Motivation Potential scores and job involvement "state banks"

Variable		Motivation Potential scores	Skill variety	Task Identity	Feedback	Task Significance	Autonomy	Job Involvement
Motivation Potential scores	Pearson Correlation	1						
	Sig. (2-tailed)							
Skill variety	Pearson Correlation	0.857**	1					
	Sig. (2-tailed)	0.000						
Task Identity	Pearson Correlation	0.628**	0.520**	1				
	Sig. (2-tailed)	0.000	0.000					
Feedback	Pearson Correlation	0.676**	0.320**	0.315**	1			
	Sig. (2-tailed)	0.000	0.004	0.004				
Task Significance	Pearson Correlation	0.763**	0.472**	0.439**	0.309**	1		
	Sig. (2-tailed)	0.000	0.000	0.000	0.005			
Autonomy	Pearson Correlation	0.576**	0.420**	0.315**	0.592**	0.339**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.005	0.000		
Job Involvement	Pearson Correlation	0.700**	0.460**	0.439**	0.463**	0.490**	0.473**	1
	Sig. (2-tailed)	0.000	.001	0.000	0.000	0.000	0.001	

The Pearson correlation coefficient between motivational potential score and job involvement among public staffs is 0/700. Because the significance level of correlation coefficient (0.000) is less than the error level 0.05, we can conclude that there is a significant relationship between motivational potential score and staffs job involvement among public banks. Also, due to the positive correlation coefficient, we can claim that there is a direct and significant relationship between motivational potential score and staffs job involvement among public banks. In other words, by increasing staffs motivation, job involvement also increases. Therefore, according to the previously mentioned materials and existence of a significant relationship between motivational potential score and staffs job involvement among public banks, with 95% confidence (because the significance level is less than 0.01, with 99% confidence) we can claim that

the first hypothesis " There is a significant relationship between motivational Potential Score and Staffs Job involvement among Public Banks" is confirmed (Table. 2.).

Also Motivational Potential Score has five dimensions, according to the significance level of motivational potential score, we can conclude that between dimensions of skill variety, Task identity, feedback from supervisor, Task Significance, and job's independence with job involvement among public banks there is a direct and significant relationship.

**The Second Hypothesis: There is a significant relationship between Motivational Potential Score and Staffs Job involvement among Private Banks.**

Table 3 - Test correlation coefficient of Dimension potential motivations job involving "private banks"

Variable		Motivation Potential scores	Skill variety	Task Identity	Feedback	Task Significance	Autonomy	Job Involvement
Motivation Potential scores	Pearson Correlation	1						
	Sig. (2-tailed)							
Skill variety	Pearson Correlation	0.775**	1					
	Sig. (2-tailed)	0.000						
Task Identity	Pearson Correlation	0.789**	0.376**	1				

	Sig. (2-tailed)	0.000	0.000					
Feedback	Pearson Correlation	0.524**	0.420**	0.524**	1			
	Sig. (2-tailed)	0.000	0.000	0.000				
Task Significance	Pearson Correlation	0.615**	0.328**	0.554**	0.571**	1		
	Sig. (2-tailed)	0.000	0.001	0.000	0.000			
Autonomy	Pearson Correlation	0.553**	0.330**	0.655**	0.324**	0.688**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.001		
Job Involvement	Pearson Correlation	0.381**	0.352**	0.585**	0.459**	0.879**	0.359**	1
	Sig. (2-tailed)	0.000	0.003	0.000	0.003	0.004	0.000	

The Pearson correlation coefficient between motivational potential score and staffs job involvement in private banks is 0/381. According to the significance level of correlation coefficient (0.000) which is less than the error level 0.05, we can conclude that there is a significant relationship between motivational potential score and staffs job involvement in private banks. Also, due to the positive correlation coefficient, we can claim that there is a direct and significant relationship between these two variables. In other words, by increasing motivation, job involvement also increases. Therefore, according to the presented material and existence of a significant relationship between motivational potential score and staffs job involvement with 95% confidence (because the significance level is less than

0/01, with 99% confidence) we can claim that the second hypothesis "There is a significant Relationship between Motivational Potential Score and Staffs Job involvement in Private Banks" is confirmed (Table. 3.) Also according to the significance level of motivational potential score we can conclude that between dimensions of Skill variety, Task identity, feedback from the supervisor, Task Significance and independence, and job involvement in private banks there is a direct and significant relationship.

**The Third Hypothesis: There is a significant difference between private and public banks from the Motivational Potential score dimension.**

Table 4-t-test result on the different dimension potential motivations state and private banks

Mean comparison test					Levene's Test for Equality of Variances	
t Std. Deviation	Mean Difference	Sig. (2-tailed)	df	t	Sig. (2-tailed)	F
2.5	1.79	0.366	143	0.748	0.772	0.089
2.5	1.79	0.451	137.134	0.739		
Equal variances assumed						
Equal variances not assumed						

The test results about the hypothesis testing are presented at the above table. At the above table to reaching the correct answer, two testing carried out the first has been done about the equality of variance between groups and the second has been done about the comparison of potential scores mean. According to the obtained significance level for equality of variance testing which is 0/672 and is greater than 0/05, thus the equality of variance assumption is accepted. With 95% confidence can be said that the variance between public and private banks is equal. As a result, all numbers obtained is considered in the line corresponding to an equal variance. In comparing two samples mean it's possible that the difference between public and private

bank will be random or maybe actually it exists. Achieved significant level for the t-test is 366/0, and because this amount is greater than predetermined amount of 0/05, therefore the main null hypothesis is which there is no difference between public and private banks is not rejected. The amount of difference between studied groups is 0/73, and with 0/95 confidence this difference can be random. Therefore between private and public banks from the motivational potential score there is no significant difference.

**The Fourth Hypothesis: There is a significant difference between private and public banks from the Job involvement dimension.**

Table 5. Results of t-test on the difference between private and public bank job involvement

Mean comparison test					Levene's Test for Equality of Variances	
t Std. Deviation	Mean Difference	Sig. (2-tailed)	df	t	Sig. (2-tailed)	F
1.92	2.26	0.224	153	1.178	0.755	0.1070
1.94	2.26	0.224	139.8	1.169		
Equal variances assumed						
Equal variances not assumed						

The test results conducted on the hypothesis is presented in the above table. Two testing to reach the correct answer is conducted on the above table, the first is about the equality of variance and the second is conducted about mean comparison of job's involvement. According to the significance level for equality of variance which is 0/755 and greater than 0/05, thus equality assumption is confirmed. With 95% confidence we can claim that variances of two groups of public and private banks are equal. As a result, all the obtained numbers considered in the corresponding level with equality of variance. In comparing two samples means it is possible difference between public and private banks be by random or maybe it really exists. Achieved significance level for t-test is 0/244, and because this amount is greater than predetermined amount of 0/05, therefore the main null hypothesis which there is no difference between public and

private banks is not rejected. Amount of difference between studied groups is about 2/66, and with 95% confidence this difference can be random. There is no significant difference between private and public banks from the job involvement dimension.

**The Fifth Hypothesis: In comparative investigation between Motivational Potential Score and Job involvement among private and public banks there is a significant difference.**

Table 6: compares the Fisher test

Result	Sig. (2-tailed)	Z	Pearson Correlation	N	communities
The difference is not acceptable	0.471659	0.71	0.700	78	State bank
			0.381	77	private bank

To indicting whether correlations in two different communities have a significant difference or not Z (Fisher) test was conducted. Correlation between motivational potential score and job involvement in order is 0.700 and 0.381. Also achieved significance level is 0.471659. Now we must investigate that is this correlation in both public and private banks are different? Test results in order to investigate the hypothesis and answer to the question are presented in the following table.

Information on the above table indicates which at significance level of 0.05 in the correlation between motivational potential score and job involvement among two groups of private and public banks there is no significant difference.

#### 4 Conclusion

Low job's motivation can has a negative effect on organization's growing trend, with using motivating potential index we can compute the overall index of each job for creating motivation among staffs, and following that with using diagnosis investigating of job we can identify jobs which have low or high level of motivation, and finally to reach organizational growth, jobs which their MPS is low be determined and separated in order to redesigning and increasing of motivational ability. According to the results of the current study, there is a positive significant relationship between motivational potential score and job's involvement. Also there wasn't any significant difference between private and public banks from the motivational potential score and job involvement dimensions.

#### 5 Suggestions

As regards the research hypothesis which there is a significant relationship between motivational potential score and job involvement was confirmed, but suggestions presented in which banks managers by noticing this point that motivational potential dimensions (diversity, identity, importance, independence, and feedback), education (because education can improve increasing of staffs job's involvement, decreasing updating of skills, increasing a sense of belonging, benefitting from welfare, maximizing commitment to the organization, creating organizational competition, and there is a positive relationship between educational programs and staffs job's participation), creating motivation among staffs for increasing participation in activities especially participation in decision-making which creates a kind of obligation among decision-makers which support taken decisions, and noticing to the personality style of staffs can increase participation or job involvement of staffs. Also with sharing of staffs in organization's success (need for sociability, need for success, and hope for power), c Hosing a formidable staffs (feedback from supervisor, Task Identity, Task Significance), accurate assessment of activities and performances, noticing to the organizational structure and job (independence) and promoting staffs knowledge (skills diversity), have a conviction to a management of motivation as an inevitable rule.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## THE STUDY OF PRODUCT PRICE EFFICACY ON CUSTOMER BUYING INTENTION

<sup>a</sup>SEYYED ABOLGHASEM MIRA, <sup>b\*</sup>FARIBA ZAREI

<sup>a</sup>*Department of Business administration, University of Tehran, Tehran, Iran*

<sup>b</sup>*Department of business management, Kish international campus, University of Tehran, Kish Island, Iran*  
Email: <sup>a</sup>Smira@ut.ac.ir, <sup>b</sup>f.zarei@ut.ac.ir

**Abstract.** The purpose of this article is to study the effect of five different dimensions of price image on shopping intentions in different kinds of stores. In this study, 306 participants of three Isfahan stores were selected from a list consisted of 18 retailers. Based on these data, a multi-group analysis was done on Mplus with the use of covariance structure in order to examine the direct and indirect effects of five dimensions of product price image on shopping intentions. It shows the differences resulting from the structures of the stores. The effect of product price image is different in various stores. The results is related to some applied concepts of commodity pricing in retails. For instance, retailers should not only focus on the price level. Also, retailers should allocate different priorities to each dimensions of price image.

**Keywords:** Pricing, Price Image, Store, Customer's Behavior

### 1 Introduction

Retailers compete with each other on the price of goods. Empirical studies show that price is an important factor in selecting a grocery store (Tigert, 1983). Also, a price perception is an inseparable part of retailers' price image (Lindquist, 1974/1975).

Current development in food retail will raise the importance of the price. Particularly in Europe, traditional retailers are subject to the rapid development of auctions (Colla, 2003). From customers' point of view, auctions give lower price in relation to traditional retails (Mitchell and Kiral, 1999; Morschett et al., 2006).

Therefore, retailers will maintain their positions with introducing economical store brands (Moreau, 2006c, 2007). In such a situation, it is very important that the retail managers measure the price image of their own store. This task will help the retail managers to identify the difference between their suggested price and customers' suggested price. A measurement of price image is very important in recording the effects of different strategies of pricing (Downs and Haynes, 1984). However, retailers should not only measure the price image because one researcher showed that price image and satisfaction of price are multi parameters (Zielke, 2006). Therefore, retailers should make a decision that which dimensions are more important. Some retailers should pay more attention to the image of price level, but other ones should pay attention to the customers' perception of the money value. An image of price level will point to the customers' perception of expensive or cheap selling of a store. Money value is referred to a customer's perception of his or her payments (Price-performance ratio). Also, retailers should be aware of the effect of price perceptibility, price processing, and price evaluation certainty on shopping intentions. This study replies to the above questions with analyzing the efficacy of five dimensions of a price image on shopping intentions. Previous studies showed approximately the behavioral effects of price image dimensions (Zielke, 2006). In the previous studies, the elements were not completely developed and prices were used as a central dependent variable. Therefore, this study will expand the previous study with the use of new methods of measuring the price image and modelling the direct effects of price image dimensions on shopping intentions.

Different dimensions of a price image are in relation with each other. Therefore, if only direct effects were analyzed on the shopping intentions, the results of this analysis are illusive. For instance, a perceptibility of a price level is prior to the perceived value. This task would affect significantly the perceptibility of the price level which was moderated with the perceived value.

Therefore, being awareness of such indirect effects needs gathering information about real parameters relating to the price image. This article will study these effects. In previous studies, only the relationship between the selected price images was analyzed. Therefore, in this article, a researcher is aimed to complete those studies with analyzing some indirect effects in a comprehensive model. Analyzing these direct and indirect effects is illusive without considering the differences of store structures. Structure of different stores are different in price and pricing (Morschett et al., 2006). This study shows that the dimension effects of price image can be different in different stores. In the previous studies, researchers did not regard the moderating role of store structures. Managers should be aware of the moderating effect of the store structures. For instance, if a value perception for a shopping intention were very important in auctions, managers of such stores should use their energy on this dimension and not on the perceptibility of the price level. Therefore, this study will analyze the effect of store structures on moderating the effects of price image dimensions on shopping intention to develop the previous studies. In summary, this article will analyze the direct and indirect effects of five price image dimensions on the shopping intention in different structures of stores. In this article, the researchers expanded the previous studies with the following steps.

- 1) Finding a new way for measuring the price image
- 2) Building a model for direct effects of price image dimensions on shopping intentions
- 3) Analyzing some indirect effects in a comprehensive model
- 4) Considering the moderating effects of a store structure

### 2 Theoretical Background

Nystrom (1970) was the first person who studied on the price image of the retail. He defined a price image as a buyer's reaction toward a price of goods. Similarly, most researchers defined a price image with a single dimension such as a low price or an image of price level. In recent studies, a price image is defined as a multi-dimensional hidden variable (Zielke, 2006). Based on this belief, a price image is a multi-dimensional hidden variable which is included of various perception dimensions which are in relation to a retailer's prerequisites on pricing and its results. It seems that this definition shows the price image better than other definitions. Previous studies will help people in understanding the price image of retailing. In the first study, researchers showed the effect of different groups of products in price image of retailing and defined a price image as a price of stores. In the second study, researchers explained what retailers should do at the time of low prices. In this study, the prerequisites of the price image were explained in retailing. In the third study, researchers paid attention more to the analysis of structures relating to the price rather than the perceptibility of the price level. Therefore, they paid attention more to the money value (Zeithaml, 1988; Sweeney and Soutar, 2001) or the fairness of prices (Campbell, 1999; Homburg et al., 2005 e.g. Kahneman et al., 1986). A final study was mixed with a third study in a way that the perceptibility of a price and a price image were assumed in a multi-dimensional way (Zielke, 2006).

Recent studies are based on the multi-dimensional studies specially, the results of Zielke who identified some dimensions of the price image such as the perceptibility of a price level, money value, perceptibility of a commodity price, price processing, and evaluating certainty. The present study is aimed to expand this study with improving measurement of a price image and the analysis of direct and indirect effects of price image dimensions on shopping intentions in a comprehensive model and moderating effects of a store structure.

### 3 Price Image Dimensions

It is essential to define these kinds of dimensions before expanding the assumptions relating to the behavioral effect of

price image dimensions. Based on over-viewing the previous studies and an empirical study, five dimensions of a price image were selected. These five dimensions were included of the perceptibility of a price level, money value, price perceptibility, price processing, and evaluation certainty. Based on the obtained results of the previous studies, other suggested dimensions such as an image of special suggestions, fairness of a price, and emotional factors were removed. The previous study showed that these parameters cannot be clearly independent of five dimensions of a price image. Five dimensions of a price image can be defined as follows:

- 1) Perceptibility of a price level means perceiving a price without considering a difference in product quality. In stores and retails, perceptibility of a price level is like the image of a price level. For one kind of product, perceptibility of a price level is obtained from comparing the product prices with a standard price which is called a reference price. This result can be in accordance with the image of a price level of retails. Most authors have suggested some rules for this case.
- 2) Money value is usually defined with a difference in received and paid goods or services (Emery, 1969; Dodds and Monroe, 1985; Zeithaml, 1988). In a domain of retailing, money value is equal to the gain and loss obtained from a product and qualitative attributes of a store. Customers may regard nonfinancial expenses of a purchase process as a loss like the price of goods (Zeithaml, 1988; Gijsbrechts, 1993; Baker et al., 2002). Although it seems that perceptibility of a price level and a money value are related to each other, a retailing store can have completely different behavior on these two dimensions. For instance, meat price seems cheap for a major buyer like an owner of a restaurant, but the meat itself is not worthwhile. However this person may find expensive drink prices of his or her favorite store acceptable.
- 3) Perceptibility of a price is as easy as accessing to the prices of goods in stores. Previous studies showed clearly the importance of price tags in improving the perceptibility of a price (Zielke, 2006).
- 4) Price processing is as easy as analyzing the prices specially, when the price of similar goods are compared (Zielke, 2006). While labeling is prior to the perceptibility of a price, price processing are dependent to the announcement of commodity prices of the stores. Therefore, if big and red price tags are used in the stores, great achievements will be obtained in the domain of perceptibility of a price. On the other hand, no achievement will be accessed in the domain of price processing.
- 5) Evaluation certainty means that how customers do the process of price evaluation (Zielke, 2006). Since the price evaluation of products is difficult for customers, overall evaluation of prices of one store is more difficult. In retailing stores, there are no clear way for evaluating the prices because the customers' knowledge of prices are not a lot and being aware of various prices is very difficult (Desai and Talukdar, 2003). If prices were perceived and processed, evaluation certainty would be weak due to the overtime changes in prices or price differences between different products. Therefore, evaluation certainty is dependent from other dimensions of a price image in retailing.

#### The structure of Retailing Stores

The structures of stores are defined as the special advantages that the stores give to the customers for satisfying their needs.

In Europe, auctions and different kinds of big stores are identified as retailing market. In addition, structures such as weekly markets and organic grocery stores are existent. These structures will be analyzed in the following part. As you can see, the effect of different dimensions of a price image is potentially different in auction structures, big stores, organic grocery stores, and weekly markets. In auctions, foods are sold with a very low price.

Products that are of high inventory turnover and limited categories, sizes, and brands are usually sold in the auctions. An area of these kinds of stores is less than 1500 square meters. Also, in these kinds of stores, less than 1500 products are presented to people. Sometimes, auctions are called as a big store which less various products are sold in. Some kinds of these stores are like Aldi, Dia, Lidl, and US-chain Save-a-Lot (Zentes et al., 2007). Big stores are included of different subsets. In conventional big stores, a lot of foodstuffs which are 30000 kinds are sold. The area of these kinds of stores is between 400 and 1000 square meters. There are some differences among superstores, hypermarkets, and big stores. In superstores, approximately 30000 to 40000 kinds of products are presented, but in hypermarkets, more than 40000 kinds of products are presented. The area of supermarkets is between 1000 and 5000 square meters, but the area of hypermarkets is more than 5000 square meters. Some of these stores are like Auchan, Carrefour, and Metro (Zentes et al., 2007).

Although clear differences are identified among big stores, superstores, and hypermarkets in many books, it is sometimes difficult to that in practice. For instance, retailers such as Edeka, Rewe, Swiss Coop, and Tesco use the name of their company in different kinds of stores. A difference between different kinds of stores is not clear and it is different in various sources. Organic grocery stores are stores which present specified kinds of products with a based price level. Organic products are produced with processes are adoptable with nature. These kinds of products are not included of pesticides, preservatives, and other chemical materials (Chinnici et al., 2002). Like big stores, different kinds of these stores are existent. Traditionally, a size of these kinds of stores is small. Also, these kinds of stores are controlled with independent retailers. Nowadays, more organic products are produced in industrial farms. Also, these kinds of products are sold in chain organic grocery stores (Thompson and Coskuner-Balli, 2007). For instance, in Alnatatura which is one kind of Germany store and its area is 550 square meters, 6000 kinds of products are presented. In northern America and British, 20000 kinds of food stuffs are sold in stores which their areas are 3000 square meters. Anyway, in Europe, normal organic grocery stores are kinds of stores which organic products are sold exclusively in. Public markets are places which small and dependent sellers sell different kinds of products. Since these kinds of markets are held weekly, these kinds of markets are also called weekly markets. In weekly markets, some of the farmers, local producers, and independent traders sell fresh groceries like fruit, vegetable, flower, meet, fish, egg, and dairy products. Farmers' markets are one subset of weekly markets in which local farmers sell fruit and vegetables. Although the product variety of these kinds of markets is limited to fresh products, a customer can buy the products from different producers. Prices in these kinds of markets are between low prices which are identified by independent traders and based prices which are identified by the farmers of organic products. The size of these kinds of markets is based on the place that they are held in. Recent studies show the difference among four kinds of stores such as auctions, stores, organic grocery stores, and weekly markets. Table 1 shows the difference among these four kinds of stores.

Table 1. Difference among auctions, stores, organic grocery stores, and weekly markets

style	Auctions	Stores	Organic Grocery stores	Weekly Markets
Price	Very low	Low-Average	High	Low-High
The Amount of Decoration	Less	Moderate- a lot	Less-Moderate	Moderate- a lot
Variety	Less	Moderate-A lot	Less-Moderate	Less-Moderate
Size	Small	Average-big	Small-Average	Small-Big

This table can be used for stores like usual stores, superstores, and hypermarkets.

#### 4 Assumptions

In the previous part, five dimensions of the retailing price image which were perceptibility of the price level, money value, price processing, and evaluation certainty were defined. In fact, these dimensions are not independent. This phenomenon is not unusual. Other multidimensional structures are of separated and related dimensions. In this part, these correlations are discussed and the assumptions toward these dimensions are expanded. Based on the previous studies, it seems that these five dimensions have direct effect on the shopping intention. Price level is an important criterion in selecting the stores (Tigert, 1983). Price level is now regarded a lot in Europe due to the achievements obtained in auctions (Colla, 2003). Also, these things show that the decisions are made by retailers and people who give services to people are affected by the money value. Price perceptibility and processing are related to the easiness in buying and non-cash expenses in buying process. Previous studies focus on this idea that shopping intentions are affected by the easiness in buying and non-cash expenses in the buying process. Since uncertainty will lead to the risk in buying, evaluation certainty has an effect on the shopping intention. Customers can decrease this kind of risk with buying from stores which their prices are exact.

**H1:** Price level, money value, perceptibility of a price, price processing, and evaluation certainty have a direct and positive effect on the shopping intention of people.

Also, a lot of indirect effects are existent in the process of forming the price image. Therefore, it seems that analyzing the relationships among these five dimensions is important. First, perceptibility of a price should have a positive effect on the money value. Such relationship is adoptable with the definition of the value and its samples can be seen in this study.

**H2:** Perceptibility of a price level has a positive effect on the money value.

Money value will overlap financial losses. Therefore, perceptibility of the price, price processing, and evaluation certainty will decrease moral, physical, and non-cash expenses. These expenses are the nonfinancial elements of the price. Therefore, these kinds of expenses should have effect on the money value. It should be mentioned that the previous studies were unsuccessful in studying the relationship between the non-cash expenses and the money value (Baker et al., 2002).

Also, the results of Baker and his coworkers' study should be proved in different situations. Baker and his coworkers studied these kinds of relationships on a card and gift store with the use of a CCTV camera. They understood that in these stores, there were less relationships among moral, physical, and non-cash expenses in relation to small supermarkets because economical prices are more important in small supermarkets (Babin et al., 1994).

**H3:** Price perceptibility has a positive effect on the perception of money value.

**H4:** Price processing has a positive effect on the perception of money value.

**H5:** Evaluation certainty has a positive effect on the perception of money value.

In addition, different relationships among perceptibility of a price, price processing, and price estimation should be discussed. In the first step, we can say that the perceptibility of a price has a positive effect on the price processing. This hypothesis was concluded from the processing model of information (Zeithaml, 1988).

**H6:** Perceptibility of the price has a positive effect on the price processing.

Also, it is assumed that perceptibility of the price and price processing are effective on the evaluation certainty. Difficulty in learning and processing information in relation to the price will lead to the price uncertainty. This assumption is proved with the previous writings. A researcher whose name was Zeithaml proved that brands will lead to the accuracy increase in price remind. Also, an organized list of product prices will lead to the accuracy improvement in comparison of prices. Zielke also observed the significant effect of price perceptibility and processing on the estimation certainty.

**H7:** Price perceptibility has a positive effect on the evaluation certainty.

**H8:** Price processing has a positive effect on the evaluation certainty.

One of the effects of price level image on the evaluation certainty is formulated into a hypothesis. This hypothesis is based on this discussion that low prices can be processed very easy, but the higher prices should be processed with the quality estimation of services and goods.

**H9:** Price level perceptibility has a positive effect on the evaluation certainty.

Previous relation will affect the price level and processing. Studies which were done on the unit price showed that the utility of the unit price will lead to the selection of an economical product and customers will buy cheaper products. Other authors proved that in the stores, the structure of shelves will affect selecting the cheaper products. Therefore, if cheap products of the stores were not hidden in the beneath shelves, the relation between the price of one product to the overall price level could be affected a lot at by the customers.

**H10:** Price processing has a positive effect on the perception of price level.

In figure 1, you saw a model which was build based on the tenth hypothesis. This structural model shows that there should be indirect effects as well as direct effects. Therefore, the first assumption cannot be expanded. Also, it would be considerable if the first hypothesis were rejected by some data.

**H11:** Price level perception, money value, price perceptibility, price processing, and evaluation certainty have great direct and indirect positive effects on the shopping intention of people.

Assumptions were already based on this idea that the dimensions of a price image have various direct and indirect effects on the shopping intention of people in retail stores.

Although some of these effects were discussed in previous studies, a comprehensive model was not prepared for all of these effects.

In addition, the effect of store structures on changing the relationships is not discussed here. It seems that the relations among dimensions of price image in different store structures like auctions, big stores, organic grocery stores, and weekly stores are different. Although we considered all of the above assumptions into our model, it would not be possible to discuss each effect in these four stores. Therefore, in the following paragraphs, it is discussed about the general idea toward the moderating effects. In auctions, the effect of price level is less than other kinds of stores. Since a low price is a main criterion of such stores, customers and people who are not customers look at this kind of stores as cheap stores. Also, in organic grocery stores, there should not be a lot of variations in the price level. Possibly, all customers think that the prices of organic grocery stores are higher than other stores. In big stores, conditions are

very different because a price level and pricing tactics are different in these kinds of stores. Weekly stores act like big stores. In big stores and weekly stores, a price level is more important than auctions and organic grocery stores. In auctions, money value is important because some of the customers have a bad view toward the relationship between the low price and the quality of goods. Therefore, this view will lead to the decrease in money value. Price perceptibility and processing is important in big stores because more stuffs are sold in these kinds of stores. Therefore, purchasing from big stores is time-consuming. Also, comparing the prices in big stores is difficult. Price perceptibility and processing are very important in weekly markets because setting a price is more unclear in these kinds of stores and a customer may be make a decision to compare a price of different sellers. Here, predicting the difference of the evaluation certainty is difficult. Therefore, these kinds of effects should be analyzed too because the effect of the parameters is a lot.

**H12:** Behavioral effects resulting from the price level money value, price perceptibility and processing, and evaluation certainty are different in various stores.

### 5 Criteria

In the previous studies, a measuring tool was used for evaluating the five dimensions of the price image (Zielke, 2006). Some of

the price dimensions are measured analytically with the measuring tools, but other price dimensions are measured structurally with the measuring tools. This subject is a little complicated because structural and analytical measurements should be analyzed differently. Therefore, researchers make a decision to expand the analytical measurements with the existent measuring tools. One of the measuring tools was expanded based on the dimensions of the price image and previous studies. In the first pretest, researchers studied the clearness of all parameters. The second pretest was conducted with 75 students. Based on the results of the second pretest, some of the parameters were amended, substituted, or removed. In the final step, all the dimensions of the price image are measured with three, four, or five parameters. Also, seven options were considered for these measurements. The first option is completely disagree and the seventh option is completely agree. Measuring tools of this example are as follows:

In sum, prices were very low (Price level). With regard to the money that I had and a commodity that I wanted to buy, prices were suitable (Money value) and very easily readably (Price perceptibility). In this kind of store, a comparison of different commodity prices is very difficult (Price processing). Therefore, I can easily evaluate this store based on its commodity prices (evaluation certainty). A complete list of measuring tools is shown in table 2.

Table 2. Measuring Tools

Price Level	In sum, Prices of goods were very low.
	In sum, prices of goods were very high.
	You can buy your groceries from here with cheap prices.
	In this store, prices are cheaper than other stores.
Money Value	In this store, prices are more expensive than other stores.
	With regard to the money that I have and a commodity that I want to buy, prices are suitable.
	With regard to the money that I have and a commodity that I want to buy, prices are high.
	In this store, money has a good value.
Price perceptibility	In this store, a ratio of a price to the store efficiency is very good in relation to other stores.
	In this store, a ratio of a price to the store efficiency is very low in relation to other stores.
	Prices are easily readable.
	You can easily understand that what the price of your product is.
Price Processing	In this store, we cannot easily identify the prices of goods in relation to other stores.
	In this store, comparing different commodity prices is very difficult.
	It takes a lot of time to find the most suitable commodity.
Evaluation Certainty	In this store, the prices are more than other stores.
	I can easily evaluate the efficiency of this store based on its commodity prices.
	I cannot easily evaluate the efficiency of this store based on its commodity prices.
Shopping Intention	In this store, evaluating the prices of goods is difficult.
	I should buy most of my stuffs from this store.
	I should buy most of my stuffs from other stores.
	I should consider this store for buying my stuffs too.
	I should not consider this store for buying my stuffs.

### 6 Methodology

Assumptions were examined manually. Information was gathered by the students of European university. These students interviewed with people who bought regularly groceries and considered their age, sex, the number of their family members, and their income. Also, some of the participants filled the questionnaires at home. Then, these questionnaires were gathered by the students or sent by the post to the research team. Therefore, participants could answer these questionnaires without any haste.

It is asked participants to choose three retail stores which their prices are very different in relation to other stores. Then, these participants should rank these retail stores with a measuring tool. The order of questions was in a way that they did not have any effect on the participants' answers. Also, participants did not understand of multidimensional aspect of price image. It was not obligatory asked participants to choose the stores that they know

and buy from because this task will make closer this situation to the real situation in practice. In real conditions, a customer will face some options which know some and does not know others. For instance, if a customer bought regularly his or her stuffs from one auction, he or she would have a price image from that store. Therefore, when he or she wants to buy something from that store, he or she will consider the prices of other stores. Customers should buy their stuffs from a store which their prices are suitable for them even if they buy or do not buy their stuffs from that store. Also, customers have a price image from the stores they buy or do not buy their stuffs from. Although 306 questionnaires were gathered, 918 measurements were obtained from the price image because each participant had to answer to questions about three stores. 21.7 percent of people chose the stores which they always bought their stuffs from. 27.6 percent of people chose the stores which they sometimes bought their stuffs from. 50.7 percent of people chose the stores which they rarely bought their stuffs from. Questions relating to daily and repetitive purchases show that participants have the competency

to answer the questions. The participants' age average was 36 years old. 62 percent of participants were women and 61 percent of participants were from families which their members were two or more than two persons. Participants' income average was 1 to 1.5 million Toman.

## 7 Results

### 7.1 Descriptive Statistics

Table 3 shows the amount of average and standard deviation of five dimensions of a price image and shopping intention. Descriptive statistics shows that a perception of a price image is

very different among different structures of the stores. Considerably, auctions had the best price image and other stores were similar to each other with a little difference in their structures. For instance, the prices of big stores were identified cheaper than weekly markets and organic grocery stores. Also, a money value of these three stores is similar. From the perspective of price perceptibility and processing, weekly markets were set in the lower rank than other kinds of stores. In weekly markets and organic grocery stores, Evaluation certainty was similar, but it was less than auctions and big stores.

Table 3. Descriptive Statistics for Dimensions of Price Image and shopping Intention

Dimensions	Total N=918		Auctions N=339		Big Stores N=364		Organic Foods N=143		Weekly Markets N=72	
	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation	Average	Standard Deviation
Price Level	4.28	1.95	6.29	0.78	3.61	1.26	1.95	0.89	2.78	1.22
Money Value	5.01	1.32	5.94	0.90	4.47	1.22	4.42	1.29	4.57	1.04
Price Perceptibility	5.23	1.29	5.53	1.28	5.30	1.16	4.89	1.30	4.20	1.36
Price Processing	4.84	1.53	5.76	1.14	4.41	1.41	4.36	1.43	3.69	1.67
Evaluation certainty	5.14	1.43	5.86	1.05	5.05	1.24	4.17	1.62	4.13	1.57
shopping Intention	4.98	1.72	6.01	1.25	4.53	1.63	3.89	1.83	4.50	1.27

### 7.2 The Validity of Convergence and Separation

In the first step, the convergence validity of each price image dimension and shopping intention were confirmed with their Cronbach alphas. The validity of these dimensions were more than 0.7. Researchers such as Nunnally and Bernstein (1994) stated that an appropriate amount for price level (PL), money level (VAL), price perceptibility (PPC), price processing (PPR),

evaluation certainty (EC), and shopping intention (SI) are respectively 0.97, 0.89, 0.825, 0.86, 0.84, and 0.92. Then, the separation validity of the price image dimensions were tested with an analysis of a confirmed factor. Also, Mplus program was analyzed by the MLR estimator. Based on the writings, the amount of processing indexes are acceptable. Table 4 shows that the variance of a price image dimension is more than the correlation square of this dimension and other dimensions.

Table 4. Separation Validity

Dimensions		PL	VAL	PPC	PPR	EC
Price Level	PL	84.5				
Money Value	VAL	56.7	63.1			
Price Perceptibility	PPC	11.1	22.4	60.6		
Price Processing	PPR	32.8	39.3	35.2	67.4	
Evaluation Certainty	EC	31.1	33.9	22.2	32.6	64.3

### 7.3 Behavioral Relationships among Price Image Dimensions

Behavioral effects of price image dimensions were first tested without considering the store structures. Some of the separated states were removed from the list. The results were shown in the left hand side of table 5. The amount of processing indexes are very satisfied.

In addition, it was proved that all measuring models with factors of 0.74 to 0.94 are convergent. A hidden variable of R-square is 0.70 for the buying intention. There are direct, great, and positive effects for a money value (0.70), price level (0.11), and evaluation certainty (0.10). Therefore, H1a, H1b, and H1e were confirmed and H1c and H1d were rejected. It will be shown in the next part that price perceptibility and processing have indirect effects on the shopping intention. The second hypothesis was based on the positive effect of the price level on price perceptibility. This relationship is very strong. Since a standard fixed path between two structures is 0.55, the second hypothesis is confirmed. As it was said in the third, fourth, and fifth hypothesis, price perceptibility, price processing, and evaluation

certainty have an effect on the value perception. Since the coefficient of these dimensions were respectively 0.11, 0.16, and 0.13, the third, fourth, and fifth hypothesis are confirmed. Also, a price perceptibility has a positive effect on the price processing which is 0.59. Therefore, the sixth hypothesis will be confirmed with this point. In addition, the effects of price perceptibility and processing were great and positive on the evaluation certainty. Also, the amount of their effects were respectively 0.22 and 0.25. This point will confirm the seventh and eighth hypothesis. Another positive relationship which is considerable is a relationship between the price level and evaluation certainty. The coefficient of this relationship was 0.34. Therefore, the ninth hypothesis will be confirmed with this point. Finally, we talk about the effect of price processing on the price level. The effect of price processing on the price level is considerably great and is equal to 0.59. Therefore, the tenth hypothesis will be confirmed with this point. Also, the effects of five price image dimensions were examined for the purpose of studying the eleventh hypothesis. Therefore, H11a and H11e were confirmed with the effect of price level (0.56), price processing (0.49), price perceptibility (0.38), and evaluation certainty (0.19).

Table 5. The Results of a Path Model

	Total		Auctions		Big Stores		Organic Foods		Weekly Markets	
	Sigma	Beta	Sigma	Beta	Sigma	Beta	Sigma	Beta	Sigma	Beta
Direct Effects										
H1a: PL→SI	0.030	0.11	0.071	-0.24	0.115	0.12	0.066	0.13	0.001	0.34
H1b: VAL→SI	0.000	0.70	0.000	0.99	0.000	0.69	0.000	0.60	0.052	0.27
H1c: PPC→SI	0.440	-0.03	0.019	-0.20	0.464	0.05	0.209	-0.12	0.025	0.38
H1d: PPR→SI	0.953	0.00	0.860	0.02	0.668	0.03	0.692	0.05	0.228	0.18
H1e: EC→SI	0.031	0.10	0.667	-0.05	0.228	0.06	0.147	0.15	0.866	-0.03
H2: PL→VAL	0.000	0.55	0.000	0.52	0.000	0.71	0.191	0.13	0.051	0.27
H3: PPC→VAL	0.003	0.11	0.002	0.19	0.000	0.26	0.342	0.09	0.804	-0.06
H4: PPR→VAL	0.002	0.16	0.917	0.01	0.653	0.03	0.176	0.19	0.339	0.18
H5: EC→VAL	0.006	0.13	0.005	0.35	0.527	0.03	0.007	0.32	0.130	0.39
H6: PPC→PPR	0.000	0.59	0.000	0.64	0.000	0.61	0.019	0.32	0.000	0.62
H7: PPC→EC	0.000	0.22	0.031	0.17	0.004	0.31	0.229	0.14	0.015	0.40
H8: PPR→EC	0.000	0.25	0.006	0.27	0.030	0.21	0.011	0.34	0.099	0.28
H9: PL→EC	0.000	0.34	0.000	0.39	0.193	0.09	0.224	0.11	0.041	0.22
H10: PPR→PL	0.000	0.59	0.000	0.47	0.000	0.45	0.005	0.28	0.011	0.39
Total Effects										
H11a: PL→SI	0.000	0.56	0.000	0.39	0.000	0.62	0.006	0.25	0.000	0.43
H11b: VAL→SI	0.000	0.70	0.000	0.99	0.000	0.69	0.000	0.60	0.052	0.27
H11c: PPC→SI	0.000	0.38	0.001	0.22	0.000	0.47	0.391	0.09	0.000	0.65
H11d: PPR→SI	0.000	0.49	0.001	0.29	0.000	0.34	0.006	0.35	0.009	0.41
H11e: EC→SI	0.000	0.19	0.034	0.30	0.175	0.08	0.004	0.34	0.690	0.07

Price Level= PL

Value of Money = VAL

Price Perceptibility= PPC

Price Processing= PPR

Evaluation Certainly= EC

Shopping Intention= SI

#### 7.4 Moderating Effect of Store Structure

The twelfth hypothesis was based on this fact that the amount of price image dimension effect was different in different structures of stores. This subject was studied with a multi-group analysis which there were a difference among auctions, big stores, organic grocery stores, and weekly markets. The amount of processing indexes was weaker than the overall sample.

This point can be understood easily because the variance which was made with the structure differences of stores was removed from the model. A hidden variable of R-square is 0.50 percent in auctions, 0.74 percent in big stores, 0.52 percent in organic grocery stores, and 0.73 percent in weekly markets. Researchers compared a multi-group of a confined model with an unlimited model. In a confined model, all the coefficients of a model were similar in all the structures of stores. On the other hand, these parameters were estimated separately in an unlimited model. Both models were compared with a chi-square test and the suggested method by Satorra and Bentler (2001). The results show that the difference between the chi-square test of confined and unlimited models were positive and considerable.

$$\Delta\chi^2 \frac{1}{4} 103.27 > 58.12, \Delta df = 42, p = 0.05 \quad (1)$$

Therefore, the twelfth hypothesis will be confirmed because an unlimited model is better than a confined model. After proving the differences among the store structures, patterns of the fixes were studied in three store structures. In auctions, a great effect of money value on a shopping intention will dominate the fixes of a pattern path (0.99). Also, a price level has a negative and

inappreciable effect (-0.24). Although the overall effect is positive and considerable (0.39), these observations can be understood with regard to the great effect of a price level on a money value (0.52). Therefore, the effect of a price level on a shopping intention will be done with a money value. This means that a price level cannot justify purchasing from auctions. Customers will relate the prices to the things that they want to buy. Then, they go to the auctions and buy their things. A price level in auctions has a great effect on the evaluation certainty (0.39). Therefore, it makes us to focus more on this assumption that a low price in auctions will lead to the increase in evaluation certainty. Moreover, in auctions, evaluation certainty has a great effect on the money value (0.35) and an overall effect on the shopping intention (0.30). Therefore, evaluation certainty play a serious role in price image of auctions. Although a price perceptibility has a negative and direct effect on the shopping intention (-0.20), the overall effect is positive (0.22). In auctions, big tags of prices does not lonely have effect on the shopping intention of customers. These tags would have an effect on the customers if they are used along with the money value, price processing, and evaluation certainty. With regard to the overall effect, we can understand that a money value is the most important dimension (0.99) in auctions. Then, a price level (0.39), evaluation certainty (0.30), price processing (0.29), and price perceptibility (0.22) are important.

Pattern of big stores is more different than auctions. In big stores, a money value has less direct effect (0.69) than other price image dimensions, but a price level has little positive direct effect (0.115). When we look at the overall effects of price image dimensions in big stores, we understand that an overall effect of a price level is less than a money value effect (0.69). Therefore, a money value is a moderating factor of a price level perception. Like auctions, the effect of a price level is a lot on the perception of a money value (0.71). Unlike auctions, evaluation certainty is very low. Direct effect of an evaluation certainty is very low and is equal to 0.06. Also, an effect of an evaluation certainty on a money value is very low and equal to 0.527. The overall effects of evaluation certainty is very low and equal to 0.08. The effects of price perceptibility (0.47) and price processing (0.34) are strong and considerable. Price perceptibility has a great effect on the money value (0.26), but a price processing has a great effect on the price level perception (0.45). We can easily perceive the great effect of price image dimensions on the big stores and hypermarkets because the

variety and classification of their goods is a lot. Therefore, price perceptibility and price processing are related to each other a lot. With regard to the relative significance of five price image dimensions, we can say that a money value perception is the most important dimension in big stores and hypermarkets (0.69). Then, a price level perception (0.62), price perceptibility (0.47), price processing (0.34), and evaluation certainty (0.08) are important in big stores and hypermarkets. In organic grocery stores, a direct effect of a price level and a money value are like big stores and are respectively 0.13 and 0.60, but their overall effect is different. An overall effect of a money value (0.60) is more than a price level (0.25). We can reach to this point with regarding the insignificant relationship between a price level and a money value (0.13) and an insignificant effect of a price level on the evaluation certainty (0.244). When participants evaluated a money value in organic grocery stores, they did not pay attention a lot to different elements of a price. Although a price level does not have a great effect on the evaluation certainty, its overall effect is considerable and equal to 0.004. In organic grocery stores, an effect of an evaluation certainty on the money value is a lot and equal to 0.007. Finally, a pattern of organic grocery stores can be described with an insignificant overall effect of a price perceptibility which is 0.09. Like big stores, the effect of a price perceptibility in organic grocery stores is

considerable and equal to 0.35. Small and flat shelves of organic grocery stores will justify this issue. In organic grocery stores, price perceptibility is not problematic because a price processing is problematic and a customer cannot compare the price of organic and inorganic products. In sum, we can say that a money value with an overall effect of 0.60 is the most important dimension of price image in organic grocery stores. Then, the overall effect of a price processing (0.35), evaluation certainty (0.34), a price level (0.25) and a price perceptibility (0.09) are important in organic grocery stores. In weekly markets, a price level perception (0.34) and a price perceptibility (0.38) have a considerable direct effect on the shopping intention of people. The effect of a money value is insignificant and equal to 0.27. This is like the effect of a price level perception on the money value (0.27). Anyway, both effects of money value and price level are considerable in the surface of 10 percent. Since price perceptibility has a great effect on the price processing, it has a key role in the results of a weekly market (0.62). Since price perceptibility will lead to the increase in price level perception (0.39), it has the most significant overall effect on the shopping intention of people (0.65). Then, a price level perception (0.43), price processing (0.41), money value (0.27), and an evaluation certainty (0.07) are important.

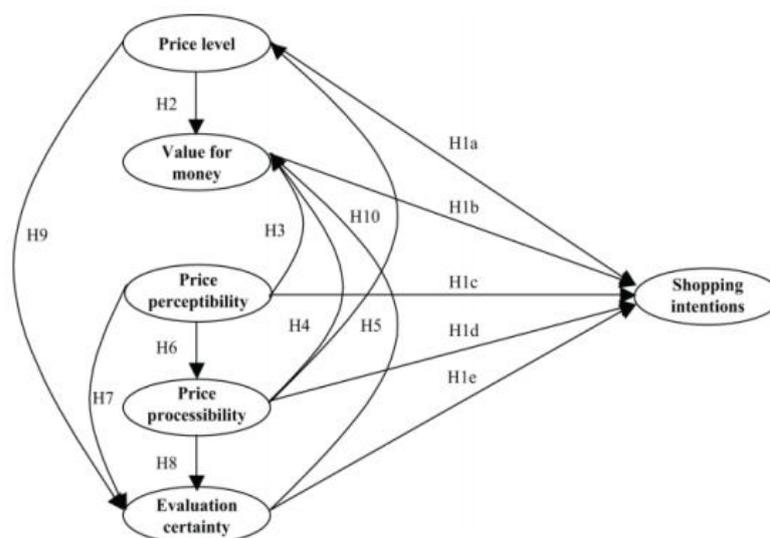


Figure 1. Structural model of Hypothesis

## 8 Discussion

The results of the study confirmed most of the assumptions relating to the effects in an overall model. In this study, not only the direct effects of price perceptibility and processing were identified, but also the effects of other dimensions of the price image were identified. The results of this show that disregarding the price image dimensions are a mistake. Price perceptibility and processing have indirect effects on the shopping intention and the overall effects of price image dimensions. Price perceptibility and processing will become clearer with considering the structure of big stores and weekly markets. In summary, a multi-group analysis will lead to the identification of some of the structural differences of stores in the domain of direct, indirect, and overall effects. Since we cannot study all the effects of the price image dimensions, we only point at the important and basic cases.

In auctions, the amount of price is the most important dimension of a price image. In auctions, a price level perception has stronger effect on the accuracy of price estimation. Also, the overall effect of evaluation certainty is a lot on the shopping intention of people.

In big stores, an overall effect of price level perceptibility and the amount of price are like each other. In big stores, the effect of a price level on the amount of a price is more than other stores and a price perceptibility and processing have a close relationship with each other.

In organic grocery stores, an overall effect of a price amount is more than a price level perception. There is no relation between a price level perception and the amount of a price. Also, the overall effect of the price level perception is weaker than the price perceptibility and evaluation certainty.

The results obtained from weekly markets are different in relation to other stores. Price perceptibility has a key role in justification of a shopping intention. In weekly markets, a price level perception has a direct and overall effect in relation to a price amount.

## 9 Management Concepts

The results of this study are related to some management concepts in retail stores. The results of this study show that the retailers should not only compete with each other in the domain of a price level. Price amount, price perceptibility, price

processing, and evaluation certainty have great direct and indirect effects on the shopping intention. Therefore, it is told retailers to measure a customer perception from a price image dimension point of view. These measurements are necessary for decreasing the price distance of different stores. Also, they are necessary for the customers' reaction toward prices. In addition, measuring different dimensions of a price image is of special importance for observing the effect of different pricing strategies on the customers' behavior (Downs and Haynes, 1984). This study will suggest a measuring tool which can be used for measuring different dimensions of a price image.

The results obtaining from a structural model will make the management relationship among different dimensions of a price image clear. The results of this study show that a price level perception has a great effect on the money value. Although a price perception, a price processing, and evaluation certainty have important direct effects on the money value, price processing has an indirect effect on the money value. Therefore, retailers can increase customers' price level perception and money value perception without decreasing the prices. Retailers can make the concept of price perceptibility and processing easier for the customers with price tags, organized lists of prices, and product arrangement. Although price perceptibility and processing will have direct and indirect effects on the evaluation certainty, a price level has more effect on the evaluation certainty. This point shows that the stores which their price levels are low are better than other stores because their prices can be easily estimated. Retailers who their price levels are medium or high should try to decrease the effect of a price level with warranting the prices of brand products or continuous amendment of a based price based on the product quality change.

Also, retailers should be aware that the relation among different dimensions of a price image will be affected by the structure of the stores. Therefore, retailers should change their own priorities toward managing the price image. In auctions, sellers should focus on the money value perception of people because money value is an important price image dimension in this kind of store. Apparently, it is not adequate to sell cheap products. Recently, most sellers in auctions are on attempt to improve the money value with servicing better food products such as organic food products (Moreau, 2006b). Sellers should pay attention to this point that they should not increase the prices with every little change in the price level. We can say that a price level is a basic element of auctions. When a price level cannot be estimated in auctions, it should be regarded. Therefore, in auctions, sellers do not need to improve their price levels, but they have to satisfy their customers' expectations. In big stores, a price level and a money value are important. In Britain, retailers were more successful than auctions with selling brand and general products (Moreau, 2006a). In addition, sellers pay attention to the efficiency of a money value too. For instance, they sell brand products which their quality is better than the internal products (Burt, 2000). This case is more important than the improvement of the money value perception in auctions. In addition, big stores' sellers should not disregard the price perceptibility and processing. If sellers put their cheap products in the beneath shelves, they cannot compete with other sellers in the plaza. In organic grocery stores, a shopping intention of people can become increased a lot with people's perceived value because price processing and evaluation certainty are of high importance in organic grocery stores. Retailers should constantly improve their prices. They can moderate actively the price differences of internal products and announce the added amounts of product prices to the customers clearly. Since price perceptibility is the most important price image of weekly markets, sellers should pay attention more to the announcement of prices specially, with a price tag. Since price level perception seems more important than the money value perception in weekly markets, sellers should improve their price levels.

#### 10 Future Theories and Studies

This study expanded the previous studies from different aspects. In this study, different price image dimensions were measured with a clear measuring criteria and the behavioral effect of these dimensions were identified with the analysis of direct, indirect, and moderating effects of price image dimensions. The results show that disregarding the indirect and moderating effects of these price image dimensions is incorrect and illusive. Anyway, the results of this study are good for future studies. The things that should be regarded in the next studies are as follows:

First, price image dimensions should be studied from different factor point of view (Gijsbrechts, 1993).

Secondly, researchers should consider more mediating and moderating parameters of price image dimensions on the shopping intention of people. Satisfaction can be considered as a mediator (Varki and Colgate, 2001) and being awareness of prices (Drichoutis et al., 2007) can be considered as a moderator.

Thirdly, the results of this study should be generalized in the future studies with examining price image dimensions in different geographical areas and with different methods of gathering data.

Finally, this study can be done in the future in the real condition of purchasing.

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**Primary Paper Section: A****Secondary Paper Section: AE**

## IDENTIFYING AND PRIORITIZING AFFECTING FACTORS ON HUMAN FORCE EFFICACY IN TABRIZ MASKAN BANK

<sup>a</sup>NADER BOHLOULI, <sup>b</sup>MAGHSOUD MOSAYYEBZADEH

*Department of Management, Bonab Branch, Islamic Azad University, Bonab, Iran.*

*Email: <sup>a</sup>nader.bohlouli.a1986@gmail.com,*

*<sup>b</sup>masoud.mosayyebzadeh@hotmail.com*

**Abstract:** To achieve sustainable success, bank organizations need to change and improvement in different fields. Among them, human resources has more important role due to its impact on change and improvement in all fields of employments. The main aim of the present paper is to identify and prioritize affecting factors on human force efficacy. We used a structured questionnaire method based on research literature and elites' opinions to gather data for this research. A 174 subject sample of Tabriz Bank Maskan employees are investigated by using a questionnaire and simple random sampling method. The results show that among five major identified variables, change strategy management, organizational process improvement strategy and employees' strategic capabilities have significant association to employees' efficacy.

**Keywords:** efficacy, human resource efficacy, affecting factors on employees' efficacy

### 1 Introduction

In recent years, by joining to WTO, domestic banking system is encountering with new challenges like the entrance of foreign banks, starting the operation of private banks and increases in the activities of financial and credit institutes. Therefore, such challenges have urged domestic banks to improve their performance in order to survive and compete in a dynamic environment and to improve status quo by identifying weaknesses and strengths (Manandhar & Tang, 2002). Today, organizations are facing with high pressures to improve performance and using market competitive opportunities that neglecting them can endanger their survival and effectiveness (Namasivayam et al, 2007).

"Efficacy" is used more in three scopes of management, economy and politics. Undoubtedly, human resource is the most valuable capital for organizations so that they shape organizational decisions and provide solution, resolve organizational problems, realize productivity and signify efficiency and effectiveness. Therefore, human resources spend most part of their life as employees, worker or manager in organizational environment which is highly important to respect them (Alavi, 1995; Aghabakhshi, 2000). Efficient and capable human force creates capable and efficient organization. According to Drucker, economic growth owes to empower competent staff (Abedini & Poursalehi, 2009). Although a set of organizational factors are effective in transformations, one can say that the role of human force in official transformation as one of the most important priorities for a dynamic and continuous movement.

HR development means to generate idea by organizational employees and its new concept necessitates that employees are equipped with those qualities and skills and full commitment and empathy by which they use their abilities, energy, and expertise and thought to realize organizational missions and create new thinking and qualitative values for organization. To this end, many organizations worldwide invest on knowledge management (Moosakhani et al, 2013). Overall, HR development includes:

- Scientific awareness and improving employees' knowledge;
- Scientific and balanced behaviors in employees;
- Improving employees' capabilities;
- Developing employees' skills;
- Updating employees' information;
- Improving the ability of resolving problems scientifically;
- Proper job performance;
- Logical decision making (Nilipour Tabatabaei & Soltani Dehkordi, 2014)

Organizations use different styles for managing their employees. HR management style is a pattern of decisions adopted and executed for human resources and includes HR supply (planning, finding employees, selection, career development, training and development), performance appraisal and payment (job analysis, performance evaluation, payment combination and structure) and job relations (creating and fostering relations between individual and organization, monitor and control, organizational identity) (Bamberger & Meshoulam, 2000). Employees' strategic capability is a concept on employees' abilities to design and execute strategies which generate sustainable competitive advantage for company. In strategic capabilities patters, two measures are respected:

- **Strategic value:** it is the ratio of strategic advantages from an individual's specialty created for customers to all costs endured by organization for that individual. It directly depends on competitive advantages or core competencies (Purcell & Ahlstrand, 1994).
- **Uniqueness:** Employees' strategic importance to generate such distinguishes are two highly competitive. Likewise, employees' uniqueness impacts directly on their capabilities to be considered as a competitive advantage source. Employees' uniqueness can be defined to some extent that their expertise is unreplaceable and cannot be mutated by potential and de fact rivals (Lepak & Snell, 1999)

Productivity is to maximize the utilization of resources, human force and initiatives scientifically in order to reduce costs and to satisfy employees, managers and customers. One of the important pillars of any entity/organization is its HR productivity and efficacy. HR productivity is the ratio of performed works by organization (goods production or service providing) within a given time to consumed human resources (total employees of the organization) based on hour/person, week/person or month/person (Azadeh et al, 2011).

There are different views on determining affecting factors on productivity. Affecting factors on productivity include:

- Continuous job training for employees and managers;
- Promoting the motivation of employees for better and more working;
- Paving the ground for employees/managers' initiative and creativity;
- Establishing proper performance based payment;
- Establishing reward/punishment system;
- Governance promotion;
- The domination of organization's policies on affairs (Pedram, 2011).

Despite of extraordinary importance of HR empowerment in organizations, due to different reasons such as ambiguity of organizational goals, lack of a proper definition to measure HR productivity and efficacy and some existing factors in market emanated from business environment non-competitiveness have caused that a certain mechanism is not defined to make HR qualitative and even this mechanism is not taken seriously (Abedini & Poursalehi, 2009). Since productivity improvement in organizations depends on HR efficacy and productivity, one should identify and prioritize affecting factors in HR efficacy and productivity in organizations. Therefore, the main problem in this research is to identify and prioritize affecting factors in HR efficacy in Tabriz Maskan Bank employees.

### 2 Research necessity and importance

Due to its thinking power, creativity and innovation, human resource is seen as the greatest property of any organization because that any improvement in organizational and technical systems is done by human resources. Thinking power of

employees in organization is seen as a hidden capital. Any organization and management which can use this hidden capital most would make it possible for growth and development. On the same basis, finding ways to improve efficiency and utilizing employees' maximum abilities to realize the goals of individual, organization and society have always been the concerns of managers and management science connoisseurs so that in recent years, "empowerment" is used a part of daily management language (Abtin et al, 2011).

Attempts to use different sources such as HR, capital, materials, energy and information effectively and efficiently should be the goal of all managers in economic, industrial and service organizations. The existence of proper organizational structure, efficient executive methods, healthy equipment and instruments, balances working environment and, more importantly, competent workforce are the requirements which should be considered by managers to achieve desired productivity.

Today, the value of many organizations especially service ones is highly depended to the knowledge and skills of their human force. Human force is prior to capital and independent from it since added value from existing capital depends on human force's knowledge and skill which uses this capital. Therefore, human resources are superior to capital and need more attention. On the other hand, one of the most important tasks of managers is to use all existing resources to achieve short and long term goals of the organization. Efficiency and effectiveness of management in any organization means managers' ability to prepare, develop, allocate, retain and utilize their resources and it requires correct information on organizational resources. As the most important resource of any organization, human force is not exclusion (Afiouni, 2007). Considering the important of human force in organizational productivity and its undeniable role in service organizations, it is too important to study affecting factors in human resource efficacy. Therefore, present study is highly important and necessary since it investigates such factors.

### 3 Literature review and research background

#### ▪ Efficacy

Any discussion on organizational goals makes it necessary to pay attention to efficacy concept. Efficacy is the ability to achieve predetermined goals (Aghabakhshi, 2000). Efficacy concept refers to personal beliefs and judgments on his/her capabilities in performing tasks and responsibilities in terms of famous psychologist, Albert Bandura's social recognition theory. Based on this theory, people impact on their motivation and behavior in a triple casualty system. Bandura refused unilateral impacts by environment on an individual's behavior which was an import hypothesis of behaviorism psychologists. Humans have self-refining and self-regulation power and by which, they monitor their opinions, feelings and behaviors and play a vital role in determining their fate (Bandura, 1997).

According to Bandura, knowledge, skills and past achievements are not proper predictors for individuals' future performance; rather, human belief on his abilities influences on his performance. There is an explicit difference between varied skills with the ability to combine them properly to perform tasks in different circumstances. People fully know to conduct which tasks and they need which skills but they are not often successful in executing such skills (ibid: 75). Conceived efficacy plays a vital role in self – motivation since efficacy belief impacts on selecting challenging goals, the amount of efforts in doing tasks, perseverance in encountering the problems and enduring the pressures (Locke & Lathan, 1990)

Usually, efficacy is used with efficiency. Efficacy is synonymous to efficiency and proximity to goal. Efficacy is the amount of achieving defined goals (Zahedi & Alvani, 2004). Effectiveness means to study the impact of conducted initiatives to achieve predetermined goals. In other word, effectiveness shows that to what extent conducted effort has lead into expected

results. How to use sources to achieve goals relates to efficiency (Deft, 1998).

Peter Drucker believes that effectiveness is to do right things (Robins, 2002). According to him, effectiveness is the key of organizational success. Executive institutes and organizations with any mission, goal and perspective are acting in a national or international territory and are required to answer customers, clients and stakeholders so that they are seen as accountable companies whose goals is profit and customer satisfaction or organizations whose aim is to implement determined tasks by carefully in order to help the achievement of national development goals. Therefore, performance appraisal and management quality and effectiveness as well as managers' performance in establishing performance management play a vital role in realizing the plans of agencies in macro level. Providing services and manufacturing the products with proper quality has created sufficient sensitivity to realize the goals. If performance is appraised by rightly and constantly in organizations, it would yield to efficiency and effectiveness of the organization and then it would improve promotion and accountability of executive organs. To measure the efficacy of a machine, usually its produced energy is compared to needed energy to run it (Husseini pourfard et al, 2012).

#### ▪ Human resource efficacy and its aspects

To learn an individual's efficacy, his/her performance should be measured and then the result should be compared with a proper measure. Computing human efficacy cannot be computed as ways as machines. Humans should be urged to work in similar conditions and their results should be compared. Someone who can work better than others in similar conditions is more efficient than others. Humans' efficacy depends on their talents, used tools, passed trains and their work conditions (Husseini pourfard et al, 2012). According to Bandura, efficacy has three levels:

a. Efficacy in individual level: efficacy concept in individual level has become very important in recent two recent decades. Bandura defines personal efficacy as an ability to organize and execute set of actions needed to achieve determined goals. More personal efficacy would increase the possibility of being involved and sustainability in behavior on tasks. Based on self – efficacy theory, those people who think they can perform their tasks better will act better than those ones who think they will fail (Gist & Mitchell, 1992).

b. Efficacy in collective level: social recognition theory has expanded human factor concept to collective factor. People's joint beliefs on their collective abilities to achieve desired goals are, *inter alia*, key collective factors. Group members would aggregate resources, capabilities and knowledge, create mutual backup and cooperate with each other to resolve problems and to improve the quality of their life. Collective efficacy includes social, interactive and synergic dynamics and is defined as a special trait of collective group. One cannot consider it as the algebraic aggregation of personal efficacies (Fernandez et al, 2002). Collective efficacy is a function of collective behavior and influences over their behaviors, namely, if members of group observe that their peers show (or do not show) collective behaviors, collective efficacy will be increased (decreased). Such evaluation on other people's abilities is a predictor of collective efficacy (Tasa et al, 2007).

c. Efficacy in organizational level: as the main pillar of organizational development, human plays a vital role in organizational framework. Today, organizational growth and development depends on using human resources rightly (Alhuseini, 2000). An organizational efficacy plan is a long term, planned and sustainable effort based on a comprehensive strategy and attempts to transform the organization by logical and regular recognition of difficulties and mobilizing all existing forces and resources (Toosi, 2011).

▪ Lotfollahzadeh and Assadi Sarjalu (2014) studied affecting factors on HR empowerment in organizations. In this paper, empowerment concept is defined and then the impact of organizational variables such as organizational conditions, self-

efficacy and self-management strategies on empowerment is studied. The results show direct impact of organizational conditions, self-efficacy and self-management strategies on employees, empowerment.

▪ Ebrahimzadeh et al (2010) found that affecting factors on human force's performance among the employees of Payam Noor University in Golestan Province include: personal motivation (69.4) has the highest impact on performance improvement followed by job enrichment (69.1), designations (68.9), job training (64.4), contributive management style (54.5) and job attitude (48.3).

▪ Employees' efficacy was measured by psychological theories by Arayi and Sfidani in 2014. The sim of their research was to measure employees' efficacy, to provide guidelines and the policies to promote it. Research findings indicate that such variables as job motivation, job satisfaction, organizational justice and management style have significant impact on employees' efficacy. Among these variables, employees' job satisfaction has the highest impact on employees' efficacy.

▪ In their study, Hendyani et al (2014) investigated the relationship between organizational trust and employees' efficacy of Police stations. Their findings indicate that there is a significant link between the aspects of organizational trust and employees' efficacy in police stations. Therefore, one can say that one can improve employees' effectiveness by creating and developing organizational trust aspects.

▪ In their research, Labaf and Shamiri (2000) studied affecting factors on HR effectiveness. The main goal of this research was to determine affecting factors on HR effectiveness and the impact and importance of al individual, occupational, organizational and environmental factors on HR effectiveness in the surveyed company. Overall, research findings indicate that the impact of these factors is not the same. The opinions by subjects indicate that organizational factors and individual factors have the highest impact on their effectiveness. Likewise, the findings indicate that occupational and environmental factors have the lowest impact.

▪ Aghayi (2014) studied the role of job behavioral aspects in efficiency and effectiveness of human force. In this research, the relationship between job stress variables, job satisfaction, job dependency and job turnover with employees' efficiency and effectiveness. Findings indicate that job stress, job satisfaction, job dependency and job turnover impact on HR efficiency and effectiveness.

▪ Labaf & Ranjbar (2002) studied the impact of contributive management style on employees' employees. The aim of this research was to study contributive management style and its impact of employees' effectiveness. In this research, the impact of contributive management on employees' effectiveness was analyzed based on the insights of 80 employees in an Iranian manufacturing company in 1999 for whom this style was utilized. The findings gathered in statistical analyses show that contributive management style has remarkable impact on employees' effectiveness.

▪ Khoshbakhti (2004) studied the relationship between leadership styles and work-life quality with managers' effectiveness in physical education schools and training groups at domestic governmental universities. Their findings indicated that there is a significant difference between managers' selected leadership styles and their effectiveness while there is significant relationship between leadership styles and work – life quality and managers' effectiveness. Likewise, Mascall et al (2002) introduced leadership style and Azadmarz Abadani and Tarkhurani (2007) as affecting factors on employees' efficacy.

#### 4 Proposed hypothesis

This is a descriptive survey-type study which identifies and prioritizes affecting factors on employees' efficacy in Tabriz Maskan Bank. Research population consists of all managers and employees of Mskan Bank branches in Tabriz (n=300) of whom 174 were selected as research sample by Cochran formulation randomly. Questionnaire was used to gather data. Of 86 items, 11 items relate to employees' strategic capabilities, 16 items in management styles, 18 items on change strategy and 9 strategies on organizational process and 16 items on improvement and effectiveness strategy. HR efficacy questionnaire is devised by Bandura's introduced factors.

The main hypothesis according to the previous studies in thr background are as: the human capital has significant influence on Absorption of resources in Maskan bank, Marketing has significant impact on absorption of resources in Maskan bank, and the services have significant impact on Absorption of resources in Maskan bank. So, in present study, the opinions of management group instructors are used to determine the facial and content validity of the questionnaire so that they can state appropriateness of questionnaire items based on definitions and identified affecting factors on employees' efficacy. The findings indicated that questionnaire enjoys needed validity. Its reliability was computed by SPSS software package in which Cronbach's alpha was 0.94 after deleting two questions. It indicates high reliability of the questionnaire. To analyze data, descriptive (frequency) and deductive statistics (Pearson correlation coefficient and multiple regressions) were used in SPSS software package.

#### 5 Findings

Present research aims at identifying and prioritizing affecting factors on employees' efficacy of Tabriz Maskan Bank. Therefore, we review research hypotheses by gathering the information from a 174 – subject sample. The results form data analyses for each hypothesis are provided as below:

##### 5.1 Sample demographical analysis

Sample demographical status is shown in table 1 as frequency.

Table 1: sample demographical situation

Education		Job record in Bank		Age range		Gender	
13.8	Diploma	2.3	5 years and lesss	6%	25 years and less	88.5	Male
59.8	Undergraduate	28.2	6 – 10	8%	26 – 30	11.5	Female
25.9	Graduate	53.4	11 – 20	37.5%	31 – 35		
6%	Postgraduate	16.1	21 years and more	6%	36 – 40		
				44.6%	41-45		
				6.3%	46 years and more		

As seen in table 1, most responding employees had 41 – 45 year-old and people with 11 – 20 years of job records allocated most rate of respondents. Most respondents had bachelors while most of them were men,

##### 5.2 Inductive results

Here, research hypotheses are tested by inductive statistics. Initially, questionnaire's sub-constructs normality is tested by Kolmogorov – Smirnov test. According to results, since achieved

significance is more than 5% for research variables and Kolmogorov – Smirnov test is between +1.96 and -1.96%, one can accept the assumption on population distribution normality. Parametric tests are used to review hypotheses.

Pearson correlation coefficient is used to review the correlation of independent and dependent variables of efficacy while a regression model is used to predict changes in employees' efficacy variables. In present study, the correlation between main independent variables (employees' strategic capabilities,

management style, change strategy, organizational process improvement strategy and effectiveness improvement strategy) and dependent variable of employees' efficacy are all supported. Likewise, the correlation between all minor independent variables except than return style is supported for employees' efficacy.

Hypothesis 1: employees' strategic capabilities impact on employees' efficacy of Tabriz Maskan Bank.

Hypothesis 2: Management styles impact on employees' efficacy of Tabriz Maskan Bank.

Hypothesis 3: Organizational change strategies impact on employees' efficacy of Tabriz Maskan Bank.

Hypothesis 5: organizational processes development strategies impact on employees' efficacy of Tabriz Maskan Bank.

Hypothesis 2: Organizational effectiveness improvement strategies impact on employees' efficacy of Tabriz Maskan Bank.

In table 2, correlation coefficients (R) is 0.697 among variables which indicates that there is a good correlation between main independent variables and dependent variable (employees' efficacy) while mitigated ratio (0.471) shows that 47/1% of efficacy changes among Maskan Bank employees in Tabriz depends on main identified variables in this research. In other words, main independent variables estimate mostly half of employees' efficacy.

Table 2: main multivariate regression statistics for employees' efficacy

Standard error	standard R <sup>2</sup>	R <sup>2</sup>	R	Step
4.93931	0.471	0.486	0.697	1

Table 3 shows the results on the impact of each variable in model. To describe regression ratios, Beta is used. Therefore,

relative share of each independent variable is determined in model. Comparing main variables indicate that:

Table 3: the ratios of inserted in multivariate regression equation for employees' efficacy

Sig	T	Standardized ratios	Not standardized ratios		Main variables
		Beta	Standard error	B	
0.000	5.391		3.897	21.008	Fixed
0.002	3.321	0.213	0.094	0.300	Employees' strategic capabilities
0.100	-1.654	-0.137	0.086	-0.143	Management styles
0.000	4.293	0.351	0.064	0.276	Change strategy
0.338	0.91	-0.110	0.119	-0.115	Organizational process improvement strategy
0.000	4.160	0.497	0.091	0.380	Organizational effectiveness improvement strategy

Three main variables including employees' strategic capabilities, change strategy and organizational effectiveness improvement strategy have significant impact on employees' efficacy dependent variable. However, management styles and organizational process improvement strategy variables are not significant since their significance ratio is greater than 0.05. In other words, these two variables have not impact on employees' efficacy. Organizational effectiveness improvement strategy with regression ratio of 0.479, change strategy with ratio of 0.351 and employees' strategic capabilities with ratio of 0.213 has the highest regression impact on employees' efficacy. In fact, one can say that by one standard deviation increase in "organizational effectiveness improvement strategy", employees' efficacy increases 0.479, one standard deviation increase in "change strategy", employees' efficacy increases 0.351 and one standard deviation increase in "employees' strategic capabilities", employees' efficacy increases 0.213.

Sub-hypothesis 1: employees' strategic value impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 2: employees' uniqueness impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 3: using commitment style impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 4: using contribution style impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 5: using return style impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 6: using obedience style impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 7: organizational culture impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 8: organizational structure impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 9: intra-organizational environment impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 10: personal development impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 11: organizational development impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 12: social process impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 13: quality promotion strategy impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 14: cost management strategy impacts on HR efficacy in Tabriz Maskan Bank.

Sub-hypothesis 15: persuasion and innovation strategy impacts

on HR efficacy in Tabriz Maskan Bank.

In table 4, correlation coefficients (R) is 0.759 among variables which indicates that there is a very strong correlation between minor independent variables and dependent variable (employees' efficacy) while mitigated ratio (0.539) shows that 53/9% of efficacy changes among Maskan Bank employees in Tabriz depends on minor identified variables in this research. In other words, minor independent variables estimate more than half of employees' efficacy.

Table 4: minor multivariate regression statistics for employees' efficacy

Standard error	standard R <sup>2</sup>	R <sup>2</sup>	R	Step
4.60899	0.539	0.577	0.759	1

Table 5 shows that four variables including employees' strategic value, organizational culture, quality promotion strategy and organizational development have significant impact on

employees' efficacy while other minor independent variables are not significant since their significance ratio is not greater than 0.05. In other words, it has no impact on employees' efficacy.

Table 5: the ratios of inserted in multivariate regression equation for employees' efficacy

Sig B	T	Standardized ratios	Not standardized ratios		Main variables
		Beta	Standard error	B	
0.000	4.058		4.081	16.561	Fixed
0.001	3.252	0.204	0.157	0.510	Employees' strategic value
0.582	0.552	0.037	0.142	0.079	Uniqueness
0.574	-0.563	-0.042	0.199	0.112	Commitment style
0.816	-0.234	-0.015	0.197	-0.46	Obedience style
0.726	0.351	0.028	0.229	0.081	Contributive style
0.000	5.823	0.397	0.146	0.852	Organizational culture
0.645	0.461	0.039	0.167	0.077	Organizational structure
0.857	0.180	0.013	0.113	0.020	Intra-organizational environment
0.596	-0.531	-0.049	0.217	-0.115	Personal development
0.086	1.725	0.194	0.302	0.521	Social process
0.030	-2.193	-0.218	0.375	-0.823	Organizational development
0.696	0.391	0.036	0.164	0.064	Persuasion and innovation strategy
0.001	3.526	0.339	0.155	0.546	Quality promotion
0.526	0.636	0.042	0.204	0.130	Cost management

Organizational culture with regression ratio of 0.397, quality promotion with ratio of 0.339 and organizational development with ratio of -0.218 (reverse relation) and employees' strategic value with ratio of 0.204 have the highest regression impact on employees' efficacy depended variable. In fact, one can say that one standard deviation increase in "organizational culture", employees' efficacy increases 0.397, one standard deviation increase in "quality promotion strategy", employees' efficacy increases 0.339, one standard deviation increase in "employees' strategic value", employees' efficacy increases 0.204 and one standard deviation increase in "organizational development", employees' efficacy increases 0.218.

To compare and rank identified affecting factors on employees' efficacy, Freedman test is used. According to table 6, Freedman test significance ratio was less than 0.05 in surveyed sample therefore, the priority of average impacts was not the same for three main indicators (employees' strategic capabilities, change strategy management and organizational effectiveness improvement strategy) and they have significant differences. Hence, Wilcoxon test is used to determine the impact of each main indicator in surveyed sample.

Table 6: Freedman test to rate the impact of main variables on employees' efficacy

(Sig)	Used sample quantity for sampling	Average	Main indicators
0.000	174	1.06	Employees' strategic capabilities
	174	2.95	Change strategy management
	174	1.99	Organizational effectiveness improvement strategy

Findings from Wilcoxon test indicate that the ranks of impacts by the employees' strategic capabilities, change strategy management and organizational effectiveness improvement strategy on efficacy among employees of Tabriz Maskan bank include respectively: (1) change strategy management; (2) organizational effectiveness improvement strategy; and (3) employees' strategic capabilities.

According to table 7, significance ratio of Freedman test in surveyed sample is less than 0.05. Therefore, the priority of impacts for three minor indicators (employees' strategic value, organizational culture, organizational development, quality promotion) is not the same and they have significant difference. Hence, Wilcoxon test is used to determine the rate of impact by each main indicator in surveyed sample.

Table 7: Freedman test to rate the impact of minor variables on employees' efficacy

(Sig)	Used sample quantity for sampling	Average	Main indicators
0.000	174	2.61	Employees' strategic value
	174	3.61	Organizational culture
	174	1.00	Organizational development
	174	2.78	Quality promotion

Wilcoxon test results indicate that the rates of impacts by employees' strategic value, organizational culture development and quality promotion on efficacy of employees at Tabriz Maskan Bank include: (1) organizational culture; (2) employees' strategic value; and (3) quality promotion.

## 6. Conclusion

Considering the limitation of resources and unlimited human needs, population explosion and hyper and brutal competition in global economy, productivity improvement is not only a choice but also a necessity. Undoubtedly, today economic growth and development of different societies is rooted in the rate of their productivity growth. Attempt to increase productivity rate is an attempt for better life and welfare. In today competitive world, those companies are successful which can generate productivity knowledge, vision and behavior in their managers and employees (Mirzaei, 2012). Thus, culture spirit should be inspired in organization to improve productivity in which human force is the core nexus. One of the most important goals of any organization is to promote its productivity level. Since human plays a vital role in productivity generation, his/her demands would have key impacts on organization. In fact, employees' contribution in affairs and their smart and aware efforts along with job discipline can influence on productivity in a dynamic environment. Therefore, one should particularly respect human force in organizations (Ostadzadeh, 2008). The aim of present

research is to identify and prioritize affecting factors on employees' efficacy in Tabriz Maskan Bank; therefore, research findings indicate that there is a relationship between employees' strategic capabilities, organizational change strategies and organizational effectiveness improvement strategies with employees' efficacy. In other word, these three factors influence on employees' efficacy while there is no significant relationship between leadership styles and organizational process strategies with employees' efficacy. These results are consistent with findings of Mascall et al., (2002) and Arayi and Sfidani (2014) that introduced management styles as one of the affecting factors on employees' efficacy.

Research findings for sub-hypotheses show that there is a significant relationship between employees' strategic value, organizational culture, organizational development and quality promotion strategy with employees' efficacy. The results of hypothesis on organizational development and organizational culture are consistent with the findings by Labaf and Shamiri (2000) and the results of hypothesis on quality promotion strategy with the findings by Khoshbakhti (2004). Likewise, research findings indicate that there is no significant relationship between uniqueness, commitment style, return style, contributive style, obedience style, organizational structure, intra-organizational environment, personal development, social process, persuasion and innovation strategy and cost management with employees' efficacy; it means that by one deviation in each variable, employees' efficacy in Tabriz Maskan Bank is not changing; in other word, these variables have no impact on employees' efficacy in surveyed sample. In present study, hypothesis on the relationship between structure and efficacy was not supported which is not consistent with the results by Labaf and Shamiri (2000) which introduced organizational structure as one the affecting factors on employees' efficacy. The results on refusing the hypothesis on the relationship between intra-organizational environment and employees' efficacy are not consistent with results by Azadmarz Abadani and Tarkhurani (2007) who confirmed the relationship between workplace and employees' effectiveness. Likewise, the lack of relationship between contributive management and employees' effectiveness is not consistent with results by Labaf and Shamiri (2000) that supported the relationship between contributive management style and employees' effectiveness. Not supporting persuasion and innovation strategy hypothesis is not consistent with the research by Hashemi et al (2012). Hashemi et al introduced the generation of thinking and innovation in organization as an affecting factor on human force effectiveness.

## 6.1 Recommendations

- Improving employees' work life quality in Maskan Bank due to high importance of this factor in employees' efficacy;
- Building proper organizational values to impact more on employees;
- Recognizing desired culture and creating proper cultural grounds to develop different aspects of organizational culture among Maskan Bank employees;
- Changing the culture in service organization like a secure environment for efficient individuals and promoting employees;
- Utilizing and increasing organizational structures including organizational effectiveness improvement and organizational change strategy;
- Bank employees' categorization based on strategic capabilities and periodical and continuous inspection of this categorization based on company's strategies;
- Assigning non-key and side jobs and tasks to those employees whose skills are not seen as strategic capabilities for company and preventing the assignment of key and strategic tasks to such employees;
- Utilizing modern technologies and creating conditions to train employees;
- Creating facilities and opportunities for employees' growth and improvement;
- Increasing the dignity of employees to improve their work quality and, finally, to promote employees' efficacy

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## Primary Paper Section: A

## Secondary Paper Section: AE

## NEW EVIDENCE ON REAL EXCHANGE RATE MISALIGNMENT AND THE ROLE OF EXCHANGE RATE REGIME

<sup>a</sup>BEHZAD SALMANI, <sup>b</sup>ALIREZA KAZEROONI, <sup>c</sup>MARYAM BARZEGAR MARVASTI

<sup>a</sup>Professor of Economics, Economic department, the University of Tabriz, Tabriz, Iran;

<sup>b</sup>Professor of Economics, Economic department, the University of Tabriz, Tabriz, Iran;

<sup>c</sup>PhD Candidate of Economics, the University of Tabriz, Tabriz, Iran;

Email: <sup>a</sup>b\_salmani@tabrizu.ac.ir, <sup>b</sup>kazerooni@tabrizu.ac.ir, <sup>c</sup>m.barzegar@tabrizu.ac.ir

**Abstract.** For a sample of 43 countries in the period of 1999-2014, we investigate the effect of de facto exchange rate regimes on exchange rate misalignment. To this end, a panel smooth transition model is used. In contrast to recent studies, our finding indicates that non-floating exchange rate regimes lead to a reduction in the misalignment level and its volatility. However, the result is sensitive to the lagged of misalignment. Moreover, our visual inspection demonstrates a relationship between a higher misalignment and the subsequent crisis. Hence, the extent of misalignment in relation to fundamentals could be a leading indicator to anticipate a crisis.

**Keywords:** Exchange rate regimes, Real exchange rate misalignment, Fully Modified Ordinary Least Squares, Panel Smooth Transition Model

### 1 Introduction

The economic implications of exchange rate arrangements are always a debate among economist. Especially, the effect of exchange rate regimes on exchange rate misalignment and its volatility has been a subject of considerable interest.

Although a currency's value in the floating regime is determined by the foreign exchange market, in a fixed exchange rate system, a country's government decides about the worth of its currency. Regarding literature, fixed regimes are considered more stable. Floating exchange rate regimes, on the other hand, show a greater degree of uncertainty and volatility.

There is some theoretical and empirical evidence that exchange rate misalignment is lower in fixed exchange rate regimes than in flexible ones. To put it another way, sometimes it is argued that fixed exchange rate regimes help to reduce exchange rate misalignment and its volatility. However, opposite evidence has been provided by more recent studies (David M. Kemme and Saktinil Roy (2005), Virgine Couderc and Cecile Couhard (2008), Oliver Holtemöller and Sushanta Mallick (2008, 2013), Rodrigo Caputo and Igal Magendzo (2009) and Rodrigo Caputo (2015)), i.e. high misalignment is more strongly associated with fixed regimes than floating ones. Moreover, as to literature, numerous factors may set the stage for a nonlinear adjustment mechanism in the response of misalignment to economic factors (particularly, exchange rate regimes).

The objective of this paper is to contribute to the literature by investigating the impact of defacto exchange rate regime on both the misalignment level and its volatility. Moreover, in order to account for nonlinearities in the linkage between exchange rate misalignments and economic determinants, we use a panel smooth transition model.

The results indicate that the introduction of fixed exchange rate regime helps to reduce the misalignment level and volatility only when the latter are already low. The difference between our results and recent studies may then stem from different methodology and sample to investigate the mechanism. In essence, by using Panel Smooth Transition Model (PSTR), it is possible to assess the dependence of misalignment fluctuations on exchange rate regimes.

The remainder of the paper is organized as follows. After the Introduction, model and methodology are discussed in Section II. Data and the results of the study are elaborated in Section III. The conclusion and proposed suggestion are presented in the last Section.

### 2 Model and Methodology

Following Holtmoller and Mallick (2013), we employ a panel version of a fundamental equilibrium exchange Rate or FEER model to obtain the long-run equilibrium REER for each country and then residuals from these regressions use to measure the extent of misalignment.

According to Holtmoller and Malick' (2013) statements in their paper, a simple model which supports our selection of variables to be included in the long-run real exchange rate equation is outlined as follows.

The current account (CA) as the difference between exports (volume X at price  $P_x$ , in national currency) and imports (volume M at price  $P_m$ ) is defined. Meaning that:

$$CA = P_x \cdot X - P_m \cdot M \quad (1)$$

Since other components of the current account are supposed to be exogenous with respect to the real exchange rate, the primary current account balance is considered in this paper. Moreover, when the exchange rate is in its long-run equilibrium position, the net capital flows might be zero. Hence, the interest income component is ignored.

FEER implies a flow-equilibrium. The REER is defined as the ratio of domestic prices and world prices ( $P^*$ ), measuring the price of home country goods (P) in terms of foreign goods. World prices are trade-weighted US-Dollar price averages and have to be converted to domestic currency using the nominal exchange rate (e), which is defined as the home currency price of currency i.

$$REER = \prod_{i=1}^n \left( \frac{P}{e_i P_i^*} \right)^{w_i} \times 100 \quad \sum w_i = 1 \quad (2)$$

The exponential weights for each currency i are the  $w_i$  terms, representing effective trade weights and sum to unity.

The price equations are defined as functions of the real exchange rate. While import prices only rely on world prices, export prices can be defined as a weighted geometric average of world price ( $P^*$ ) and domestic price (P),

$$P_x = (e P^*)^{-\alpha} \cdot P^{1+\alpha} = REER^\alpha P \quad (3)$$

$$P_m = \left( \frac{e P^*}{P} \right)^{-\beta} = REER^\beta \quad (4)$$

whereas real imports depend on domestic demand, Y, Real exports can be explained by world demand,  $Y_f$ . Both exports and imports volume depend on the REER as follow:

$$X = REER^\tau (Y_f)^\varphi TP^\omega TT^\rho, \text{ where } \tau < 0 \quad (5)$$

$$M = REER^\delta Y^\theta TP^\psi TT^\theta, \text{ where } \delta > 0 \quad (6)$$

where TP is trade policy and TT is terms of trade. The impact of terms of trade on the trade balance (CA) is considered, because if the exchange rate regime is non-floating, it cannot neutralize the impact of TT shocks on trade, if not it would offset any TT

shock. Owing to a negative income effect, negative terms of trade shock can worsen the trade balance, so it is important to control for such variations. According to Holtmoller and Mallick (2013), many emerging market economies grew significantly faster than industrial countries in recent years. Therefore, the national level for import demand (Y) and the world level for export demand ( $Y_i$ ) are important for the explanation of long-term REER development.

Now for internal equilibrium, a simple domestic price formation equation is included and defined as a function of the ratio of output to its potential level  $Y/\bar{Y}$ . The internal equilibrium is determined as follows:

$$P = \left(\frac{Y}{\bar{Y}}\right)^{\kappa} \quad (7)$$

Upon substitution of Eq. (3-7) in Eq. (1) and under the assumption of a zero normal current account balance, a reduced-form relationship for the long-run equilibrium real exchange rate ( $\overline{REER}$ ) is derived as follows:

$$\overline{REER} = \left( \frac{Y^{\theta} T^{\psi} \bar{Y}^{-\omega} T^{\theta} \bar{Y}^{-\rho}}{\left(\frac{Y}{\bar{Y}}\right)^{\kappa} Y_f^{\varphi}} \right)^{\frac{1}{\alpha + \tau - \beta - \delta}} \quad (8)$$

A very simple model with a relatively small set of fundamental variables is given, which can be monitored over time. The variables included here are similar to the behavioral models in this literature. For a non-zero constant level of current account,  $CA = \bar{CA}$  (external equilibrium), an analytical solution for REER does not exist. All the same, the equilibrium REER can be computed numerically for any given level of CA. Under the usual assumptions on export and import elasticities, a negative relationship between the REER and the current account is obtained to achieve a higher current account, the REER has to depreciate making exports more attractive for foreigners and imports less attractive for the domestic population.

All in all, for our purpose, the following model relates the REER to a set of fundamental variables:

$$REER = f(TOT, OPEN, DGDP, WGDP, PCA, YGAP) \quad (9)$$

Where REER, TOT, OPEN, DGDP, WGDP, PCA, and YGAP are log real effective exchange rate, log terms of trade, log degree of openness, log domestic GDP, log world GDP, Primary current account balance as percent of GDP and output gap (HP-filtered GDP), respectively. As to the literature, other variables have been included in equilibrium exchange rate regressions. However, only we relay the variables which they are necessary to achieve stationary residuals.

A wide range of modern econometric techniques is used to study the existence of a long-run relationship among variables. The Fully Modified Ordinary Least Squares or FMOLS approach is applied to investigate the relationship between REER and its long-run determinants. Reliable estimates for small sample size are produced by the FMOLS method. Besides, the mentioned method provides a check for robustness of the results. FMOLS method was introduced for estimating a single co-integrating relationship that has a combination of I(1). FMOLS method utilizes Kernel estimators of the nuisance parameters that affect the asymptotic distribution of the OLS estimator. In order to achieve asymptotic efficiency, this technique modifies least squares to account for serial correlation effects and controls the endogeneity. (Rukhsana Kalim and Mohammad Shahbaz (2008)).

The FMOLS estimator for the i-th panel member is given by,

$$\beta_i^* = (\hat{X}_i' X_i)^{-1} (\hat{X}_i' y_i^* - T\delta) \quad (10)$$

Where  $y_i^*$  is the transformed endogenous variable,  $\delta$  is a parameter for autocorrelation adjustment, and T is the number of time periods.

In addition, there is also the possibility of nonlinear adjustment, for instance, in Taylor et. al., (2001) point of views the REER adjusts in a nonlinear fashion, in the sense that the speed of adjustment varies with the extent of the deviation from parity. Moreover, there is the possibility of an asymmetric type of adjustment, in which the speed of adjustment varies depending on whether the exchange rate is above /below its equilibrium level. Thanks to different benefits and costs of having an undervalued or overvalued exchange rate, some countries would like to live with an undervalued exchange rate in order to foster exports, while others may prefer an overvalued rate to avoid inflationary pressures. This type of nonlinearity in our empirical model is considered.

The nonlinear analyses let us investigate the slowness of the adjustment process towards the long-run equilibrium. Numerous factors explain a nonlinear dynamics. All these factors imply, either a nonlinear adjustment mechanism with time-dependence properties, or a nonlinear relationship between the economic fundamentals and the exchange rates. Hence, the Panel Smooth Transition Model (PSTR) is used for testing the nonlinearity link between misalignment and some economic factors.

Bruce E. Hansen (1999) developed a regression- dependent the panel threshold regression (PTR) model. If  $\{MIS_{it}, S_{it}, x_{it}; t = 1, \dots, T, i = 1, \dots, N\}$  is considered as a balanced panel then t denoting time, i the individual,  $MIS_{it}$  the exchange rate misalignment or the dependent variable,  $S_{it}$  the threshold variable and  $x_{it}$  a vector of k exogenous variables. Therefore, the PTR model can be written as follows:

$$MIS_{it} = \begin{cases} \mu_i + \beta_1 x_{it} + \varepsilon_{it} & S_{it} \leq c \\ \mu_i + \beta_2 x_{it} + \varepsilon_{it} & S_{it} > c \end{cases} \quad (11)$$

In the model, the observations in the panel are divided into two regimes, depending on whether the threshold variable is lower or larger than the threshold c. The error term  $\varepsilon_{it}$  is independent and identically distributed. Regarding the time series context, the transition from one regime to another is abrupt and the model implicitly assumes that the two groups of observations are clearly identified and distinguished, which is not always feasible in practice.

Anders Gonzalez, Timo Terasvirta, and Dick van Dijk (2005) introduced a panel smooth transition regression (PSTR) model, by considering the case of two regimes, the PSTR model is given by:

$$MIS_{it} = \mu_i + \beta_0 x_{it} + \beta_1 x_{it} g(s_{it}; \gamma, c) + \varepsilon_{it} \quad (12)$$

where  $g(s_{it}; \gamma, c)$  is the transition function, normalized and bounded between 0 and 1,  $S_{it}$  the threshold variable which may be an exogenous variable or a combination of the lagged endogenous one,  $\gamma$  the speed of transition and c the threshold parameter. In a panel framework, the logistic specification can be used for the transition function:

$$g(s_{it}; \gamma, c) = [1 + \exp(-\gamma \prod_{j=1}^m (s_{it} - c_j))]^{-1} \quad (13)$$

with  $\gamma > 0$  and  $c_1 \leq c_2 \leq \dots \leq c_m$ . When  $m=1$  and  $\gamma \rightarrow \infty$ , the PSTR model reduces to a PTR model. As to Gonzalez et al. (2005), it is sufficient to consider only the cases

of  $m = 1$  or  $m = 2$  to capture the nonlinearities due to regime switching.

It should be noticed that the coefficients of the explanatory variables in Equation (12) are given by:  $c_x = \beta_x + \beta_x^* g(s_{it}; \gamma, c)$  with  $x=1, \dots, 4$ . When  $g(s_{it}; \gamma, c) = 0$ , then  $c_x = \beta_x$  and the estimated coefficients correspond to those of Regime 1. At the other extreme, i.e. when  $g(s_{it}; \gamma, c) = 1$ , then  $c_x = \beta_x + \beta_x^*$ . Between those two points,  $c_x$  takes a continuum of values depending on the realization of the nonlinear transition function  $g(s_{it}; \gamma, c)$ .

Moreover, Gonzalez, Trasvirta, and van Dijk (2005) suggested there is a three step strategy to apply PSTR models: (1) specification, (2) estimation and (3) evaluation and choice of the number of regimes. The aim of the identification step is to test for homogeneity against the PSTR alternative. Turning to the estimation step, nonlinear least squares are used to obtain the parameter estimates, once the data have been demeaned. Also, the evaluation step consists in (i) applying misspecification tests in order to check the validity of the estimated PSTR model and (ii) determining the number of regimes. To this end, González, Trasvirta, and van Dijk (2005) suggest a sequential procedure starting by estimating a linear model, then a PSTR model if the homogeneity hypothesis is rejected, a PSTR model with 3 regimes is no remaining heterogeneity hypothesis is rejected in PSTR 2 regimes model, and so on.

### 3 Results

Firstly, the long-run equilibrium relationship between the REER and its fundamental determinants for 43 countries is estimated. The countries in the sample are listed in the appendix. About the country selection, we rely on the availability of data for all the variables mentioned. The frequency is annual, from 1999 to 2014. Consequently, we implement a panel version of FMOLS approach. The countries included in our sample have experienced alternative exchange rate regimes. While over the time most eastern European countries moved from peg regime to a flexible one in 2007, other countries, usually middle east ones such Iran, Pakistan have done the opposite and experienced different changes in their exchange rate regimes during the period of investigation.

Based on the framework outlined in the previous section, the extent of REER misalignment from an equilibrium is calculated. The selected variables reflect broadly the most important determinants of real exchange rates though certainly not all of them. A similar approach is taken by Holtmoller and Mallick (2013). Even so, on account of the stationary problem, they didn't use the primary current account in the right-hand-side variables. Besides, following Holtmoller and Mallick (2013), we are not interested in the average size and sign of a particular coefficient here. Also, deviations of the REER from its long-run equilibrium are interpreted as a measure of REER misalignment.

Unit root tests results<sup>1</sup> for all variables except for YGAP, are similar and exhibits non-stationarity. The mentioned tests confirmed stationary of YGAP variable in its level. To obtain the extent of exchange rate misalignment, the following equation is estimated by FMOLS:

$$REER_{it} = \theta_{1i} TOT_{it} + \theta_{2i} OPEN_{it} + \theta_{3i} DGDP_{it} + \theta_{4i} WGDP_{it} + \theta_{5i} PCA_{it} + \varepsilon_{it} \quad (14)$$

Where REER, TOT, OPEN, DGDP, WGDP, and PCA are logarithms of the real effective exchange rate, terms of trade, the degree of openness, domestic GDP, world GDP and Primary current account balance as percent of GDP, respectively. In

addition,  $i=1, 2, \dots, N$  denotes countries and  $t=1, 2, \dots, T$  time periods. All variables are measured in logarithms.  $\theta_{is}$  are country-specific coefficients. The results are presented in Table (1). For testing the cointegration, Pedroni and Kao's panel cointegration tests are used. With reference to the mentioned tests, the null hypothesis of existence of the long run relationship could not be rejected. The results are presented in Table (2). As the deviations of the REER from its long-run equilibrium are interpreted as a measure of REER misalignment, then residuals from the equation (14) represents the extent of the misalignment.

Table (1): Panel cointegration regressions (1999-2014) with FMOLS.

Variable	Coefficient	t-Statistic
OPEN	-0.290	-17.627
TOT	0.064	2.384
DGDP	-0.303	-5.216
WGDP	-0.049	-0.851
PCA	373000000	4.106

Notes: Here the dependent variable is the logarithm of REER and other variables are measured in logarithms too.

Table (2): Panel cointegration tests.

Test	Statistic	Prob
Pedroni group rho-Statistic	8.497	1.000
Pedroni group PP-Statistic	-8.536	0.000
Pedroni group ADF Statistic	-1.289	0.098
Kao test	-6.897	0.000

Notes: The null hypothesis is that estimated residuals from the long-run equation indicate a unit root. If the null hypothesis is rejected, we have a cointegration relationship.

In the next step, the level of REER misalignment is explained according to the theoretical framework. As to the literature, if adjustment of domestic prices relative to nominal variables shocks is slowly, REER dynamics could be affected by non-fundamental variables in the short-run, including the currency regime in place. Moreover, many factors imply the possibility of nonlinear convergence process of the real exchange rate towards its long run equilibrium value or moving misalignment to its long-run equilibrium value. Furthermore, by using the former notations for the PSTR model in the previous section, the model can be specified as follows:

$$\begin{aligned} Mis_{it} = & \mu_{it} + \beta_1 Mis_{it-1} + \beta_2 YGAP_{it} + \beta_3 DH_{it} \\ & + \beta_4 LREER_{it} \\ & + [\beta_1^* Mis_{it-1} + \beta_2^* YGAP_{it} \\ & + \beta_3^* DF_{it} + \beta_4^* LREER_{it}] g(s_{it}; \gamma, c) \\ & + \vartheta_{it} \end{aligned} \quad (15)$$

where, DH is a dummy variable that takes value 1 if the country has fixed and managed exchange rate regimes and 0 otherwise. Besides,  $s_{it} \in S = \{Mis_{t-1}, LREER_{t-1}, DLREER_{t-1}\}$ .

By selecting the set S for  $s_{it}$ , we assume that what determines the adjustment speed of the real exchange rate misalignment towards its long run equilibrium may be either the fact that the currency appreciates or depreciates (through the sign of  $DLREER_{t-1}$ ), the size of the past currency misalignment ( $Mis_{t-1}$ ), or the precious magnitude of the REER.

The linearity in the mentioned model is tested by using the González, Trasvirta, and van Dijk (2005) test with different possible transition variables. First, we use the lagged estimated cointegrating vector as the appropriate threshold variable. The linearity test and results show in Table (3) and Table (4), respectively. The results show that when the past misalignment is used as the threshold variable, linearity is strongly rejected for our sample. Besides, the smallest p-value is obtained by using the past misalignment as the transition variable. Also, the main

<sup>1</sup> Unit root tests are not reported in order to save space, but they are available upon request.

parameters of interest are the coefficients in two extreme regimes  $\beta$  and  $\beta + \beta^*$ , the threshold parameter ( $c=283500000$ ) and the speed of transition ( $\gamma = 0.20$ ). The estimated speed of transition indicates a very smooth movement between two of linear and nonlinear parts.

According to the estimation, the coefficients of the output gap and the lagged REER change respectively from -0.85 to -6.68 and from 0.18 to -0.36 according to the model. Hence, by comparing the coefficients of the output gap and the lagged REER in the linear and nonlinear parts, our findings indicate that the output gap and the past level of REER have a significant effect on the misalignment in both parts, but their impact are stronger in the nonlinear model.

More importantly, despite a significant and negative influence of fixed exchange rate in the linear part (-0.028), once the misalignment crosses the threshold, the significant effect of it is not confirmed.

Table (3): Linearity Test and Tests of no remaining Non-Linearity

<b>H0: Linear Model</b>		
<b>H1: PSTR model with at least one Threshold Variable (r=1)</b>		
Test	Statistics	pvalue
Wald (LM)	W = 45.238	0.000
Fisher (LMF)	F = 11.255	0.000
LRT Tests (LRT)	LRT = 46.985	0.000
<b>H0: PSTR with r = 1</b>		
<b>H1: PSTR with at least r = 2</b>		
Wald (LM)	W = 4.418	0.352
Fisher (LMF)	F = 1.011	0.401
LRT Tests (LRT)	LRT = 4.434	0.350

Notes: according to the mentioned tests, not only linear model is rejected but also it is showed that nonlinear model with r=1 is the best model.

Table (4): PSTR result for the level of misalignment

<b>Linear Part</b>		
Variable	Estimated Parameters	T-statistics
Mis(-1)	0.001	18.751
YGAP	-0.852	-3.300
LREER(-1)	0.186	2.374
DH	-0.028	-2.602
<b>Nonlinear Part</b>		
Mis(-1)	-0.001	-2.261
YGAP	-5.831	-4.535
LREER(-1)	0.179	2.371
DH	0.033	0.497
Gamma	0.200	
Threshold value	283500000	

Notes: the dependent variable is the estimated residuals of Eq. (14).

Furthermore, we investigate whether fixed exchange rate regimes help to reduce exchange rate volatility. As a consequence, the squared misalignment, which is a proxy for the volatility of the misalignment, is regressed on the exchange rate regime dummies. (Tables (5), (6)). As to the results, the fixed exchange rate not only has a significant but also a negative relationship with the volatility of misalignment in both linear and nonlinear regimes. However, its effect declines in the nonlinear part, i.e. its coefficient is -1.53 in linear part and -0.20 in the nonlinear one.

Table (5): Linearity Test and Tests of no remaining Non-Linearity

<b>H0: Linear Model</b>		
<b>H1: PSTR model with at least one Threshold Variable (r=1)</b>		
Test	Statistics	pvalue
Wald (LM)	W = 40.095	0.000
Fisher (LMF)	F = 19.842	0.000
LRT Tests (LRT)	LRT = 41.460	0.000
<b>H0: PSTR with r = 1</b>		
<b>H1: PSTR with at least r = 2</b>		
Wald (LM)	W = 6.805	0.033
Fisher (LMF)	F = 3.161	0.043
LRT Tests (LRT)	LRT = 6.842	0.033

Notes: according to the mentioned tests, not only linear model is rejected but also it is showed that nonlinear model with r=1 is the best model.

Table (6): PSTR result for volatility of misalignment

<b>Linear Part</b>		
Variable	Estimated Parameters	T-statistics
Mis(-1)	0.001	14.727
DH	-1.539	-2.261
<b>Nonlinear Part</b>		
Mis(-1)	0.001	3.967
DH	1.330	0.260
Gamma	0.200	
Threshold value	283500000	

Notes: the dependent variable is the squared of misalignment that is estimated residuals of Eq. (14).

However, there is limited focus on linking fundamentals based real exchange rate misalignment and currency crisis. Using the extent of misalignment in relation to fundamentals could be an indicator to anticipate a crisis. In Fig. 1. We have visual inspection about the relationship between misalignment and the subsequent crisis.

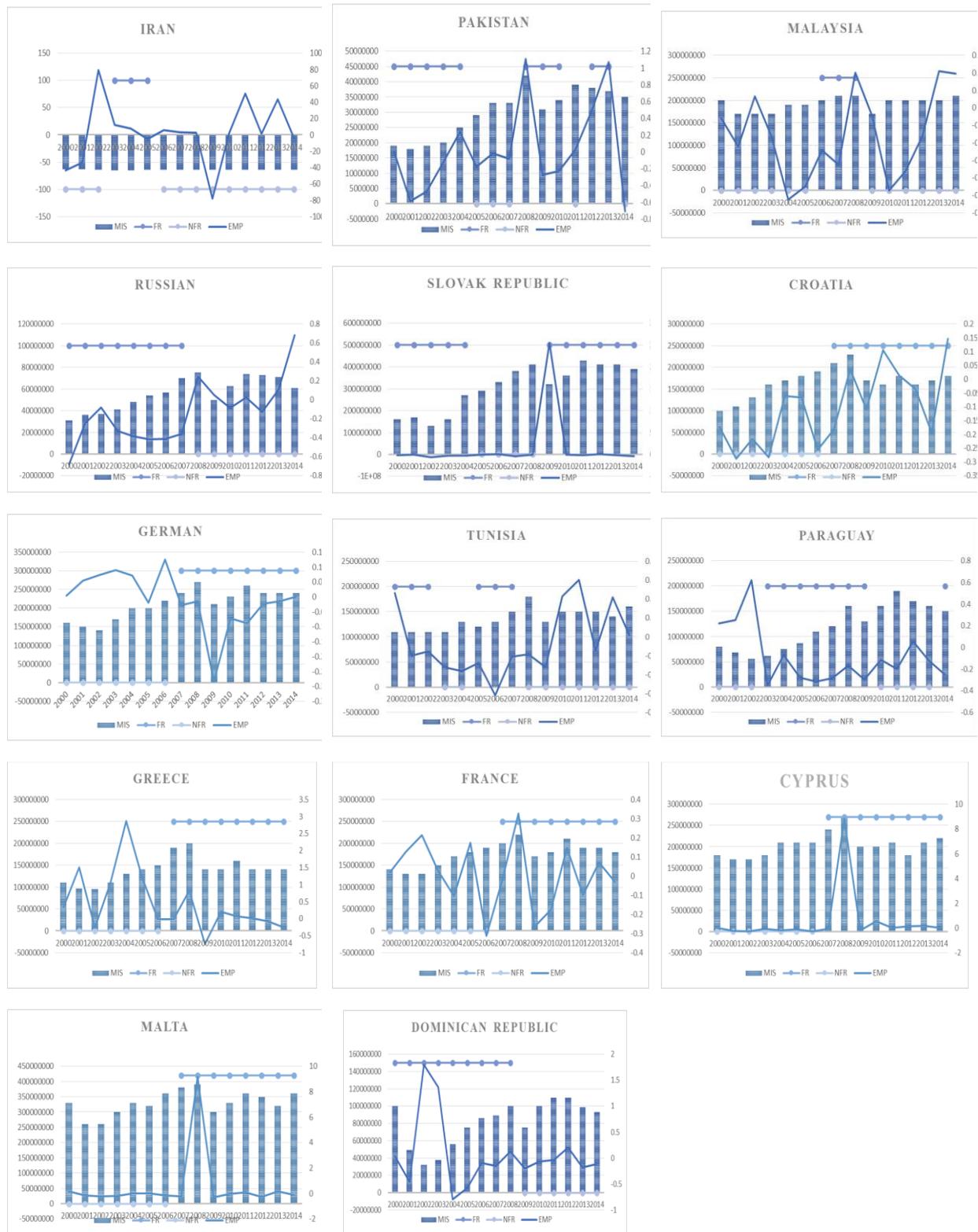


Fig.1. Misalignment and currency crises graphs for selected countries.

Notes: Shaded bars, lines, and the upper and lower axes indicate misalignments of the exchange rate, currency crises, floating exchange rate regime and non- floating ones, respectively. In this paper, we used exchange market pressure (EMP) as an indicator to show the market movements of the exchange rate and currency crisis. The definition of the EMP is related to the movements in exchange rates as well as in the reserves. By

following Aizenman and Pasricha (2012), exchange market pressure is defined as,

$$EMP_t = \left( \frac{e_t - e_{t-1}}{e_t} - \frac{ir_t - ir_{t-1}}{ir_t} \right) \times 100 \quad (16)$$

with  $e_t$  denoting the local nominal exchange rate per 1 unit of

the IMF's SDR (an increase denotes depreciation) and  $ir_t$  denoting international reserves (minus gold) in U.S. dollar in time  $t$ .

Intuitively, by examining the plots of misalignment, we find that misalignment correctly acts as a prelude to the currency crisis in the many cases. For instance, the misalignment was high, meaning the currency was overvalued immediately preceding the Iranian (2002) and the Slovakian (2009) crises.

Our results suggest that currencies in the most European countries especially emerging economies and in Asian regions as Malaysia, Pakistan, and Russia and from South American, Paraguay and Tunisia among African countries were substantially overvalued during the period prior to the currency crisis of 2008 leading to sharp depreciation. Besides, in all mentioned economies, the least misalignment was achieved in non-floating exchange rate regime.

The results for German, Malta, France, Cyprus, Ukraine, Dominican Republic and Paraguay suggest that misalignment increased from 2002 up to the onset of the crisis in 2008.

Following the severe financial crisis in 2006, Finland, German, Italy and Portugal dismantled their exchange rate anchor and switched to a regime of free float. However, except for Italy, in three others the highest misalignment has occurred in 2008 when the floating regime was dominated. As opposed to the mentioned countries, in some countries such as Luxembourg, Malta, Netherlands, France, Cyprus, Greece, Croatia, Czech Republic, Hungary, Latvia, Romania, Malaysia, and Pakistan, after changing their exchange rate regimes from non-float to float one, they experience the currency crisis and the highest misalignment.

In the case of Iran which encountered the currency crises in 2002, 2011 and 2013, are shown in Fig. 1 and the Rial were overvalued before the financial crisis of 2002. More importantly, the minimum misalignment was achieved under the floating regime in 2003, but the maximum values of misalignment and exchange market pressure were shown under non-floating exchange rate regime, respectively in 2001 and 2002. As well as that, the recent currency crises occurred under non-floating rate regime in this economy.

Furthermore, our results show that there is declining evidence of crisis under a float in many economies of our dataset. What is more, the minimum values of exchange market pressure are seen more under floating regime. As a consequence, it can be confirmed that under a more flexible exchange rate regime, the vulnerability of the exchange rate regime to external shocks can decline.

#### 4 Conclusion

Since real exchange rate fluctuations are important for competitiveness and the adoption of suitable fiscal and monetary policies, in this paper, we have studied the behavior of exchange rate misalignments under different exchange rate regimes by means of a panel smooth transition model. Based on 43 countries during the period of 1999-2014, we assess the misalignment of the real effective exchange rate (REER) from its equilibrium level, defined according to various macroeconomic fundamental on the type exchange rate regime.

Strong evidence of nonlinearity in the adjustment of the misalignment to fundamentals and the exchange rate regime is found. In particular, when the lagged misalignment is lower than its threshold level, the output gap and the lagged exchange rate level have less influence on the misalignment than when above the threshold. More importantly, only when the misalignment is low, fixed exchange rate regimes end in reducing the misalignment level and volatility. Our evidence shows that estimated misalignment could be a warning indicator of a currency crisis.

#### Appendix: Countries in the sample

Austria	Portugal	Ukraine	Samoa
Belgium	Spain	Algeria	Solomon Islands
Cyprus	Switzerland	Burundi	Dominican Republic
Finland	Croatia	Gambia	Guyana
France	Czech Republic	Malawi	Paraguay
Germany	Hungary	Nigeria	Trinidad and Tobago
Greece	Latvia	Sierra Leone	Uruguay
Ireland	Romania	Tunisia	
Italy	Slovak Republic	Iran	
Luxembourg	Armenia	Malaysia	
Malta	Georgia	Pakistan	
Netherlands	Russian Federation	Singapore	

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## RELATIONSHIP BETWEEN CAPITAL ADEQUACY RATIO WITH NET INCOME, OPERATING PROFIT AND RETURN ON BANK SHARES LISTED ON TEHRAN EXCHANGE

\*SAJAD HODAEIAN

*MA of Finance, Department of Management & Accounting,  
Allameh Tabataba'i University, Tehran, Iran*

*Email: "sajadhodaiean@gmail.com"*

**Abstract:** Banks basically due to the type of activity that they do have a lot of desire, to improve their business by utilizing from higher levers. The basel committee that has the responsibility to develop a healthy banking standards, has developed several provisions in the form of multiple principles for better leading of banks. The results of this study shows that according to approximate startup about the issue of capital adequacy ratio and declarations of basel Committee, the conducting investigations and determining the relationship type and correlation of various financial indicators, are necessary. So in this research the type and size of relationships between capital adequacy ratio, as the independent variable and profitability variables and stock returns-as dependent variables- were estimated in separate equations and using regression techniques.

**Keywords:** capital adequacy ratio, the bank's net profit, operating profit of banks, stock returns of banks, the basel Committee

### 1 Introduction

The profitability and stock returns, are known as two valid criteria for assessing the performance of companies. This article is also true about banks. Because as Bank's profitability is higher, indicates the health of the bank's operations and activities and level of profitability, reflects and reports of all activities and financial and managerial system and ... of banks. In addition, in the current competitive period in the banking system, these two indicators of profitability and return on equity can be considered as a parameter and index for stakeholders and an increase in the amount of them, encourages the shareholders and can also be effective even in the absorption of the deposit (as the main activity of bank in the profitability).

On the other hand, capital factor is considered as a factor affecting the performance and activities and profitability of bank. Capital is an important element of financial support in any bank, which enables banks to repay its debts when faced with economic difficulties. Therefore, in addition to playing an effective role in the financial stability of banks and risk-taking incentives, is also very effective in positive competition among banks. (Anvari Rostami, 2007)

Considering that ensuring the maintenance of funds and valid sources of capital reduce the risk of bank deposit, therefore, one of the main index for assessing banks' is capital adequacy ratio which was introduced for the first time by the basel Committee to World Banks in 1988. (Hajivali Zadeh, 2007)

In 1988, the basel Committee, introduced the appropriate minimum capital measurement system in a statement called number one statement of basel capital (or what is known as basel 1). Since then, this system not only widespread among the member countries, but also in other countries of the world was introduced and implemented and could create major developments in banking supervision methods and literature. In the late 1990s, the weaknesses of the first statement, the way was paved for the review and reconsideration of it and in June 1999 the first draft of the second capital statement known as basel number2 (or briefly basel 2), was released to be replaced instead of the previous statement at the end of 2006. (Pahlevanzdeh, 2009)

BAL Committee based on an advisory opinion and preliminary tests concluded that should determine standard ratio of capital to weighted assets according to risk in the level of 8% and ask the International Banks to achieve it. In this way judgment about capital adequacy of a bank that is done through investigating the ratio of capital to weighted assets according to risk and comparing it with determined ratio, was formed. It is evident that the banks that have adequate capital lower than prescribed ratios, will be to a decision according to banking supervisors discretionary and requirements of regulations in the country concerned. This decision includes restored base capital up to risks limitation of bank and it may be combined with the requirements and punitive measures (depending on the regulations of the country and bank type in terms of governmental and private and some other considerations). But anyway in evaluation of domestic and international markets the situation of desired bank is effective and bank cannot refrain negative consequences of insufficient capital (regardless of the type of collision monitoring device and the central bank). (Shiva, 2004).

So three variable factors of capital adequacy ratio, return on equity and profitability can be attributed as performance evaluation index of banks. Despite the importance of higher capital adequacy ratios and the role and impact of it in other accounting and financial ratios, unfortunately, there hasn't been any significant research associated with this variable and reviewing its correlation and relationship with other factors and macroeconomic variables and accounting indicators (particularly in our country). Therefore, in this research we seeks to examine the relationship between capital adequacy ratio and profitability (net profit and operating profit) and stock returns of accepted banks in the Tehran Stock Exchange.

### 2 Research hypotheses

First hypothesis: there is a significant relationship between capital adequacy ratio and net profit of accepted banks in Stock Exchange.

Second hypothesis: there is a significant relationship between capital adequacy ratio and operating profit of accepted banks in Stock Exchange.

Third hypothesis: there is a significant relationship between capital adequacy ratio and return on bank stocks of accepted banks in Stock Exchange.

### 3 Research method

The research method is correlation type, because it explores the relationship between independent and dependent variables. Also this research is classified in the category of applied researches in terms of purpose. Due to the limited community, statistical samples include all the banks of statistical population. Also main method of data collection tool in this study is based on library form. To investigate the significant or pointless relationship of variables and discover correlation coefficient the following authentic parametric and nonparametric tests will be used: Spearman correlation coefficient and regression. Also SPSS and Eviews software's are used to analysis statistical hypotheses.

**4 Theoretical foundations and research background**

**4.1 Theoretical Foundations**

**4.1.1 The general structure of basel 1**

In July 1988 the basel Committee published first statement concerning the capital arrangements. In basel 1 the major risk, is credit risk. In a statement, the credit risk, is defined as risk of non-performance by the other side. In fact the other types of risk such as investment risk, interest rate risk, exchange rate risk and the risk of focused activities of a bank is posed, but the main focus of the statement framework is on credit risk. Only in 1996, a new amendment was added to original statement to calculate market risk which was used without any significant change during the development of the next statement (BAL 2). In structure of the basel three main parts are designed that according to the Preliminary Statement includes Capital structure, classification of assets with determining the coefficients of risk and finally the part of determining the standard ratio of capital maintenance.

**4.2 The general structure and conceptual framework of basel 2**

Unlike the previous statement, the basel 2 has quite complicated structure. In fact, the arrangements laid down in the new statement has been expanded by evolution of standards used in the previous statement and has been rearranged within the framework of new pillars. In the statement structure 3 main pillars were anticipated including: 1- minimum required capital, 2- regulatory review process and 3- market discipline and are designed in a way that are communicating systematically and mutually reinforce each other. The three pillars of basel 2 can be investigated as follows: Pillar 1 or minimum capital requirements (as opposed to credit, market and operational risks) - Pillar 2, the supervisory review process - Pillar 3, market discipline.

**5 Research background**

Shultens and Jacob de (2009) in an article entitled "Relationship between the degree or type of ownership defaulted bank loans

and capital adequacy ratio" investigated relationship and intensity of degree and type of ownership relation (private, public, etc.) with two valid indicators in field of risk and bank hazards so capital adequacy ratio and default facilities. Statistical sample of research included 500 trading banks from 50 countries in the world (between 2005 and 2007). Research results show a significant relationship between capital adequacy ratio and default facilities with the type of bank ownership. While the percentage of bank ownership is more private; bank losses will be lower and a lower percentage of defaulting facilities and capital adequacy ratio will be in better situation (closer to the standard.

Babaian (2001) explored "the relationship between the changes of the items making up the balance sheet and changes in stock returns. The results of his research showed that there is not a significant relationship at 95% confidence level between rate changes of stock returns of listed companies in Tehran Stock Exchange for the period 1994 to 1995 and changes in balance sheet items. It should be noted that balance sheet items that were selected as the independent variable included: Changes in current assets, changes in long-term assets, current debt changes, changes in long-term debt and special value changes.

Mirmehrabi, (2002) in a thesis entitled "Investigation of the relationship between the increase in capital stock and stock returns of stock companies", considering the companies that had increased capital or not, tests assumptions and concludes that the capital increase is not a positive factor to increase stock returns and it is neutral.

**6 Data Analysis**

**The first hypothesis is defined as follows**

There is a significant relationship between capital adequacy ratio and net profit of banks listed on the Stock Exchange.

$$H_0 : \rho_{(y_1,x_1)}=0, \rho_{(y_1,x_1)} \neq 0 H_1 \tag{1}$$

Spearman nonparametric test statistic is used for doing this test that its results are shown in the table below.

Table 1. First hypothesis testing correlations

Spearman nonparametric test		X1	Y1
$_1X$	correlation coefficient	1000	0.795
	confidence level	0	0.012
	number of samples	54	54
$_1Y$	correlation coefficient	0.795	1000
	confidence level	0.012	0
	number of samples	54	54

Due to the smaller significance level of test from error of  $\alpha=0.05$  the null hypothesis is rejected. Therefore the first hypothesis is accepted, means:

With confidence of 95% we can say that there is a significant relationship between capital adequacy ratio and operating profit of accepted banks in the stock exchange.

Using linear regression to examine the relationship between capital adequacy ratio and net profit of banks:

The purpose of regression analysis is to find the logical relationship of the dependent variable based on independent variables that by using this relationship can offer solutions to improve variable assuming fixed conditions. (Ross and Zimmerman, 1986) This method defines for this variable that share of affecting dependent variable is separately with specified

significant coefficients. This model is a shortcut to guide managers for the allocation of costs and efforts to achieve the company's ultimate goal.

In regression models following assumptions are being tested against each other: In lieu of  $i$  a member of the set  $\{0, 1, 2, 3\}$ , we have:

$$H_0: b_i=0, H_1: b_i \neq 0 \tag{2}$$

This assumption means that the intercept coefficients and variables remains in the model or not. With zero coefficient for each of the variables, mentioned variables is omitted from the model and the concept of this issue is that no significant effect on the dependent variable and can it be ignored. Assuming there is a causal relationship between two quantitative variables and the amount of dependent variable is estimated by the

independent variable, the following simple regression model is used.

$$Y_1 = a + bX_1 \tag{3}$$

Where Y1 is net profit of banks listed on the stock exchange and X1 is the capital adequacy ratio. The first output of actually shows independent variable of model (capital adequacy ratio).

The second output (see chart below), respectively provides, correlation, coefficient of determination, adjusted coefficient of determination and the standard error of estimation.

If the sample size be small the adjusted coefficient of determination is appropriate for interpretation.

Table 2. Coefficients of the first hypothesis test

Model	correlation coefficient	coefficient of determination	Adjusted coefficient of determination	standard error of estimates
1	0.527	0.277	0.233	6.11370E11

The third output of regression analysis of variance (ANOVA) is for certain existence of a linear relationship between two variables. That defines significant of whole model through F statistic.

There is not a linear relationship between two variables: H0 and H1.

Table (3) analysis of variance of first hypothesis test

Model	Total coefficient of determination	freedom degree	Average of determination coefficient	F test	confidence level
regression	2649E24	1	2549E24		
Residual	1568E25	52	5476E23	5346	0.023
Sum	1367E25	53			

Since Sig =0.023 and is less than 0.05 the assumption of linear relationship between the two variables is confirmed.

Regression rows in the table represent the rate of dependent variable changes which is explained by the independent variable or variables. Residual row also indicates the amount of changes

of dependent variable which is defined by other factors (random). In the fourth output the regression equation is estimated.

Table 4. Coefficients of first hypothesis regression

Model	Non-Standardized coefficients		Standardized coefficients	T test	confidence level
	line slope	Standard deviation of error standard	Beta		
Limitation1 X*	9889E11	2365E11	0.0536	4181	0.001
	3053E10	9478E9		3221	0.023

$$-X10E11+3.053E9.889= Y \tag{4}$$

Since Sig (Constant) = 0.001 and is less than 0.05, so assumption of constant coefficient equality to zero is rejected. Also, since the Sig (x1) = 0.023 and is less than 0.05, so assumption of equation coefficient equality with zero is rejected.

There is a significant relationship between capital adequacy ratio and operating profit of banks listed on the Stock Exchange. In this section, as in the previous section, in order to test this hypothesis, the correlation coefficient was used.

$$H_0 : \rho_{(Y_2, X_1)} = 0, \rho_{(Y_2, X_1)} \neq 0 H_1 \tag{5}$$

**Second hypothesis is defined as follows**

Table 5. Correlation Coefficient of second hypothesis test

Spearman nonparametric test		X1	Y1
iX	correlation coefficient	1000	0.425
	confidence level	0	0.019
	number of samples	54	54
iY	correlation coefficient	0.425	1000
	confidence level	0.019	0
	number of samples	54	54

Due to the smaller significance level of test from error of  $\alpha=0.05$  the null hypothesis is rejected. Therefore the first hypothesis is accept means:

Using linear regression to examine the relationship between capital adequacy ratio and operating profit of banks listed on the Stock Exchange:

With confidence of 95% we can say that there is a significant relationship between capital adequacy ratio and operating profit of accepted banks in the stock exchange.

Assuming there is a causal relationship between two quantitative variables and the amount of dependent variable is estimated by

the independent variable, the following simple regression model is used.

$$Y_2 = a + bX_1 \quad (6)$$

Table 6. the coefficients of the second hypothesis test

Model	correlation coefficient	coefficient of determination	Adjusted coefficient of determination	standard error of estimates
1	0.399	0.159	0.123	778848E11

The third output of regression analysis of variance (ANOVA) is for certain existence of a linear relationship between two variables. That defines significant of whole model through F statistic.

There is not a linear relationship between two variables: H0 and H1.

Table 7. variance analysis of second hypothesis test

Model	Total coefficient of determination	freedom degree	Average of determination coefficient	F test	confidence level
regression	2885E24	1	2815E24	3879	0.025
Residual	1567E25	52	7612E23		
Sum	1758E25	53			

Since Sig =0.025 and is less than 0.05 the assumption of linear relationship between the two variables is confirmed.

or variables. Residual row also indicates the amount of changes of dependent variable which is defined by other factors (random).

Regression rows in the table represent the rate of dependent variable changes which is explained by the independent variable

In the fourth output the regression equation is estimated.

Table 8. Regression coefficients of first hypothesis

Model	Non-Standardized coefficients		Standardized coefficients	T test	confidence level
	line slope	Standard deviation of error standard	Beta		
Limitation1 1X	1238E12	2754E11	0.401	4495	0.018
	2129E11	8314E10		2561	0.025

$$X10E11+2.129E1.238=2Y$$

Since Sig (Constant) = 0.018 and is less than 0.05, so assumption of constant coefficient equality to zero is rejected. Also, since the Sig (x1) = 0.025 and is less than 0.05, so assumption of equation coefficient equality with zero is rejected.

There is a significant relationship capital adequacy ratio and stock returns of banks listed on the Stock Exchange.

$$H_0 : \rho_{(Y3,x1)} = 0 \quad \rho_{(Y3,x1)} \neq 0 \quad H_1 \quad (8)$$

In this section, as in the previous section, in order to test this hypothesis, the correlation coefficient was used.

### Third hypothesis is defined as follows

Table 9. Correlation coefficients of third hypothesis test

Spearman nonparametric test		X1	Y1
1X	correlation coefficient	1000	0.512
	confidence level	0	0.011
	number of samples	54	54
1Y	correlation coefficient	0.512	1000
	confidence level	0.011	0
	number of samples	54	54

Due to the smaller significance level of test from error of  $\alpha=0.05$  the null hypothesis is rejected. Therefore the first hypothesis is accept means:

With confidence of 95% we can say that there is a significant relationship capital adequacy ratio and stock returns of banks listed on the Stock Exchange.

Table (10) coefficients of third hypothesis test

Model	correlation coefficient	coefficient of determination	Adjusted coefficient of determination	standard error of estimates
1	0.645	0.416	0.395	1.58872

The third output of regression analysis of variance (ANOVA) is for certain existence of a linear relationship between two variables. That defines significant of whole model through F statistic.

Table (11) variance analysis of third hypothesis test

Model	Total coefficient of determination	freedom degree	Average of determination coefficient	F test	confidence level
regression	70454	1			
Residual	43025	52	70845	27498	0.009
Sum	113479	53	3349		

Since Sig =0.009 and is less than 0.05 the assumption of linear relationship between the two variables is confirmed.

Regression rows in the table represent the rate of dependent variable changes which is explained by the independent variable

or variables. Residual row also indicates the amount of changes of dependent variable which is defined by other factors (random).

In the fourth output the regression equation is estimated.

Table (12) regression coefficients of third hypothesis

Model	Non-Standardized coefficients		Standardized coefficients	T test	confidence level
	line slope	Standard deviation of error standard	Beta		
Limitation 1	2238E11	2547E10	0.315	8126	0.004
$_1X$	1999E10	0.314E10		6366	0.009

$$_1X10E11+1.999E2.238 =_3Y \quad (9)$$

Since Sig (Constant) = 0.004 and is less than 0.05, so assumption of constant coefficient equality to zero is rejected. Also, since the Sig (x1) = 0.009 and is less than 0.05, so assumption of equation coefficient equality with zero is rejected.

## 7 Conclusion

In the test of first hypothesis using Spearman nonparametric test was observed that there is a positive and significant correlation between capital adequacy ratio and net profit by confidence of 95%. Regression line equation is in the following form:

$$_1X10E11+3.053E9.889=_1Y \quad (10)$$

In which 1Y is net profit and 1X is capital adequacy ratio. The first hypothesis is confirmed in results.

In the second hypothesis test using the Spearman nonparametric test it was observed that there is a positive and significant correlation between capital adequacy ratio and operating profit by confidence of 95%. Regression line equation is in the following form:

$$X10E11+2.129E1.238=_2Y \quad (11)$$

In which 2Y is operating profit and 1X is capital adequacy ratio. The second hypothesis is confirmed in results.

In the third hypothesis testing using the Spearman nonparametric test was observed that there is a positive and significant correlation between capital adequacy ratio and operating profit by confidence of 95%. Regression line equation is in the following form:

$$_1X10E11+1.999E2.238 =_3Y \quad (12)$$

In which 3 Y is stock returns and 1X is capital adequacy ratio. The third hypothesis is confirmed in results.

In new capital adequacy framework that was published in 2001, there have been three main pillars as follows: 1- minimum requirements of Standard capital adequacy. In this part capital adequacy requirements are calculated and measured through focusing on credit risk, market risk and operational risk. 2- Evaluation and monitoring that is focused on capital adequacy continuous assessment and evaluation process inside the bank or financial institution. It is expected from banks and other financial institutions to set their capital adequacy ratio in a higher range of defined lower limit, and at the same time, use the policies, guidelines and internal processes for continuous assessment of capital adequacy in a way that be coordinated with different levels of risk be compatible with business and functional strategies. 3- Effective use of the market as a lever to improve information disclosure and expand health and stability within the banking system and financial institutions. The aim is to create appropriate incentives for banks and financial institutions to establish the safety and stability of operation range and efficiency in activities. New framework provided by rules committee and procedures for banking regulation is designed to provide the field of improvement in way of risk type's reflection in terms of legal capital requirements and at the same time, to make the possibility of a proper strategy on financial innovation. (Omran & Ragab, 2004)

In general, there are three main approaches for the issue of capital adequacy: 1- Standard method, in this method the minimum ratio of capital to assets is 8% that its risk is calculated through dividing to capital (market risk + operational risk+ credit risk) as follows (fifty per cent of capital must be main or initial capital). Market Risk is usually calculated by statistical method and value method due to the risk that is listed in 1996 agreement and has not changed. Credit risk calculation has been also changed. Also operational risk was not in previous agreements that is added. 2- Internal ranking basic method, in this method banks and financial and credit institutions are ranked based on risk. Symptoms AAA, AA, A, A-, B BB, BB, etc., are used from lowest risk to highest risk. Capital adequacy ratio of banks and major financial institutions with first grade investment is more than 3 billion euros on average of 3 to 4%. In the US, there is only 20 banks and large financial institution in this category. But around the world there is 188 banks and large financial

institutions whom the majority are in Europe and Japan. 3- Advanced ranking method, in this method trickier criteria are determined for risk ratings. Mostly minimum capital adequacy ratio is 36% and the maximum is 46%. In fact, compliance with capital adequacy requirements of the basel committee, causes increased bank credit and leasing companies and ability of providing their financing with low rates.

Currently basel 2 is considered as the most comprehensive document agreed in the oversight of banks on sufficient capital in professional associations and international banking supervision. In this document the criteria for capital adequacy of banks, the methods for estimating credit risk, market risk, operational risk of banks, the requirements in evaluating adequacy of capital and regulations on the disclosure of relevant procedures, in three pillars of the statement is designed with administrative purposes. Privacy raised in the capital preliminary statement of the basel Committee is expanded in the field of weighted asset calculation methods of risk and has been flexible as much as possible. So in light of this flexibility and be with introduction of different approaches for calculating risk assets, banks are accepted in selecting the most appropriate option to achieve national supervision in each country as essential in carrying out its statement by the committee.

Therefore, although the listed factors cause disagreements in approach and run-time of statement in recent years, but all countries and banking supervision bodies welcome and their readiness to implement different pillars of statement shows the importance made by those organizations. Communities are responsible to provide standards for Islamic banks activities also by understanding the growing importance of the preparation in implementation of precautionary measures using approaches of statements and the regulations monitoring Islamic banks activities.

Range of statement in areas that raises advanced techniques in calculating intended risks, despite leading better cover of risks and hazards that threaten a bank, somewhat has also added to the complexity of the new statement. However attention to the basel Committee to present technical and regulational differences in banking and monitoring systems of different countries has caused the discretion of national regulatory authorities to be accepted in each country as essential in carrying out its statement by the Committee. So, although the mentioned factors caused controversy in approach and statement execution time in recent years, but all countries and banking supervision bodies welcome and their readiness to implement different pillars of statement shows the importance made by those organizations. Communities are responsible to provide standards for Islamic banks activities also by understanding the growing importance of the preparation in implementation of precautionary measures using approaches of statements and the regulations monitoring Islamic banks activities.

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## EFFECT OF CORE STABILIZATION EXERCISE ON STATIC AND DYNAMIC BALANCE IN GIRLS WITH CEREBRAL PALSY SPASTIC DIPLEGIA

<sup>a</sup>AFROOZ FARHANG FALLAH <sup>b\*</sup>SYED SADREDDIN SHOJAEDDIN, <sup>c</sup>YAHYA SOKHANGOEI

<sup>a</sup>Masters student of Corrective Exercises and Sport Pathology, Department of Physical Education and Sport Sciences, Islamic Azad University Karaj Branch, Karaj, Iran

<sup>b</sup>Associate professor of Physical therapy and rehabilitation, Department of Physical Education and Sport Sciences Kharazmi University, Tehran, Iran

<sup>c</sup>Assistant professor of Physiotherapy, Department of Rehabilitation sciences, Welfare and Rehabilitation sciences, Tehran, Iran

Email: <sup>a</sup>f.farhang.rooz@gmail.com, <sup>b</sup>Sa\_shojaedin@yahoo.com, <sup>c</sup>yahya.sokhangoei.yah@gmail.com

**Abstract.** The aim of this study is to investigate a core stabilization exercise on static and dynamic balance Spastic diplegia. For this study, 20 volunteers were selected and randomly divided into two experimental and control groups. For data analysis, descriptive statistics to describe the data in each group and the test of Shapiro, one to determine the normality of the data and the analysis of covariance to test hypotheses and significance level  $0.05 > p$  was considered to computer software spss version 20 was used. The results showed that the static balance with eyes open and closed Romberg test, significant difference were observed but significant difference was seen in dynamic balance test Y. It can be concluded that postural control and as a result, the balance in patients with cerebral palsy Spastic diplegia by core stability training can be improved.

Words Balance: cerebral palsy, Spastic diplegia, static balance, dynamic balance, core stability, and proprioception.

### 1 Introduction

Since the beginning of human life have been countless accidents. Past and present significant proportion of people because of disability, of the pleasures of life, and are deprived of power production and construction (Chagatai et al., 2002). The first of the late nineteenth century, called LITTLE orthopedic described the disease and spastic rigidity of the term used to describe the disease (Tonekaboni 2010 and Qadiri and Mashallah 2008). Disability is one of the most important challenges for all countries regardless of their economic situation and policies of each country is to fix their problem, represents the culture and civilization of their people. Disabilities by increasing the number and severity of accidents remarkable growth, wars and acts of terrorism, economic weakness, limitation of motion activity, drug abuse and many other factors linked (Gharabaghi 2011 and Asmyrnva 2003). Undoubtedly special needs of persons with disabilities in your life that are much more difficult if not resolved. These problems usually over self-mutilation, between culture and awareness level of the community. According to a principle other biologically important, compensatory mechanisms to stimulate and launch. But research community such compensation to pay special attention to the problems people with disabilities. In contemporary humanitarian thinking, every human being has the right, not like the other. Cerebral palsy include non-progressive disease of the brain is growing which leads to a bunch of defects, neurological, motor, and about the state of the body and in the course of development of the brain (infants and children) occurs. Different causes such as brain development disorders, genetics, metabolism, ischemia, infection and acquired causes of cerebral palsy and can manifest in a neurological phenotype. The incidence cerebral palsy 1.4 to 2.4 per 1,000 live births and prenatal care despite technological advances in the last two decades and is still one of the main causes of childhood developmental disorders remains prevalent (Stanley et al., 2001). In developing countries, factors such as infections, accidents and trauma, malnutrition, maternal causes paralysis but the exact number of these countries are not available, but it looks at about 6 per thousand live births is (Lawson et al. 2003). CP based on the type of spastic muscle

tone, including the highest prevalence (75/0), Hyper Connecticut, ataxia and mixed (case Smith et al., 2009). Among the causes of balance disorders in children, impaired muscle tone, difficulty in organizing symptoms of sensory and sensory-motor data integrity (Ryan et al, 2013). Liao (2007) observed that children with mild cerebral palsy in school age can walk independently, but walking ability compared to healthy peers that this problem increases with age and Loss of ability to walk leads hence effective intervention for children with mild cerebral palsy in order to maintain or improve the ability to move at school is very important (Liao et al. 2007). Different causes such as brain development disorders, genetics, metabolism, ischemia, infection and acquired causes of cerebral palsy and can manifest in a neurological phenotype. The incidence cerebral palsy 1.4 to 2.4 per 1,000 live births and prenatal care despite technological advances in the last two decades and is still one of the main causes of childhood developmental disorders remains prevalent (Stanley et al., 2001). Although this figure has been stable for 30 years, but the underlying causes of the disease has changed. Because of the increased survival of premature infants with low birth weight or very low incidence of cerebral palsy spastic diplegia for prematurity and low birth weight is often accompanied by increased bilirubin and brain is reduced in developed countries (Pellegrino, 2002). Cerebral palsy treated by a team of experts includes doctors, occupational therapists, physiotherapists, speech therapists, social workers and psychologists, possible. Parents are important members of the team must do chores in the training of these children (Wilson et al. 2007). This study investigates the effect of an exercise period of stability on static and dynamic balance in girls with cerebral palsy spastic diplegia will be discussed.

### 2 Research purposes

The overall goal:

The effect of core stabilization training on static and dynamic balance of girls suffering from cerebral palsy spastic diplegia

#### 2.1 Specific objectives

1. The effect of core stabilization training on balance and girls suffering from cerebral palsy spastic diplegia.
2. The effect of core stabilization training on dynamic balance in girls suffering from cerebral palsy spastic diplegia.

#### 2.2 hypotheses

1. One of the core stabilization training on static and dynamic balance of girls with cerebral palsy spastic diplegia implications.

#### 2.3 specific assumptions

1. One of the core stabilization training on Static balance with spastic diplegia cerebral palsy affects girls.
2. One of the core stabilization training on dynamic balance with spastic diplegia cerebral palsy affects girls.

#### 2.4 Research presuppositions

1. The validity and reliability of measuring devices is acceptable.
2. The participants have cooperated in the investigation appropriately.
3. The experimental group did the exercises correctly and under the supervision of a researcher.
4. The subjects of nutrition during training appropriate.

5. The subjects had to be motivated to participate in the study.
6. Participants do not have the mental and emotional problems.

### 2.5 Range and areas of research

1. All research population with spastic diplegia cerebral palsy girls make up rehabilitation centers in the city of Karaj.
2. The research Range girls with cerebral palsy spastic diplegia 10 to 15 years.
3. Both the experimental and control groups in terms of age, height and weight are in the range are homogeneous.
4. Subjects' ability to sit alone or with its support.
5. The perception enough to understand the subjects' verbal requests and instructions during the test and its practice.
6. Failure to orthopedic surgery in the past year.
7. Researcher the strict implementation of training and tests as much as possible and control.

### 2.6 Conceptual and operational definitions research words

#### 2.6.1 Conceptual definitions:

1. Cerebral Palsy: This term is used to describe brain damage as a static non-progressive encephalopathy caused by abnormal development of the brain or brain damage each time before, during, or after birth occurs. Musculoskeletal disorders of the nervous system, resulting in movement disorders, poor posture and poor performance is one of the main indicators of this disorder (Robinson and Gribble, 2008).
2. Core stability: the chest as a cylindrical central region - the upper third of the shoulder girdle and pelvis of the plate as the lower third of the plate legs impressive performance, which reflects the state of the chest and belt shoulder.
3. Static balance: When the sum of all external forces acting on an object is zero, the body is in a state of static equilibrium in other words, static balance, the ability to keep the center of gravity of the body, inside the building with minimal.
4. Dynamic balance :When torque is the sum of all external forces acting on an object is zero, the body is in a state of dynamic equilibrium in other words, means the body's ability to maintain a state at the time of the move.
5. Proprioception: Related to deep tissues such as bone and pods of sensing pressure and deep sense of deep pain.

#### 2.6.2 Operational definitions:

1. Cerebral Palsy: by damage to the brain before birth, during birth or after they are born. This failure to appear for movement disorders usually spite of the damage to the brain and its lack of progress, the problems caused by the disease in the patient's life is changing.
2. Core stability: In this study, the order of core stabilization training exercises without a Swiss ball from the wing and the wing Swiss ball exercises is provided by Jeffrey in 2002.
3. The ability to maintain the center of gravity in the range of support that in this study the Earth's surface (with eyes open and eyes closed) done.
4. Dynamic balance: The ability to maintain the center of gravity in the range of support in the case of support is stable and in this research is moving up in three directions.

5. Proprioception: the ability to feel and understand the spatial location relative to each other without the use of eye organs (Lephart et al., 1997).

In this study, using quasi-experimental research design pretest - posttest control group.

### 3 Statistical Society

The population study of all spastic diplegia cerebral palsy rehabilitation centers in Karaj girls aged 10 to 15 years up.

#### 3.1 Sample and sampling method

In this study, 20 female patients with spastic diplegia cerebral palsy that have been criteria and the research was approved by the supervisory doctor and were randomly assigned to two experimental and control groups of 10 patients matched for age, height and weight are in a range of homogeneous groups.

Inclusion criteria for research:

1. The samples are spastic diplegia cerebral palsy research.
2. The ability to sit alone or with its support.
3. Perceived enough to understand simple verbal requests and instructions and practice the test is over.
4. Absence of orthopedic surgery in the year before the test.

Exclusion criteria from the research:

1. The lack of cooperation during the exercise.
2. Hearing loss, vision and illusion of being based on medical examinations observer.

### 3.2 variables

#### 3.2.1 Independent variables

Core stability exercises

#### 3.2.2 Dependent variable

1. Static balance
2. Dynamic Balance

### 3.3 Collection tool data

1. The consent form
2. Personal Information Form
3. Inventory PAR - Q medical advice to determine the activity
4. Balance for weighing
5. tape measure to measure the height
6. Romberg test to evaluate static balance
7. Y test to assess the dynamic balance
8. Stopwatch to perform the Romberg test
9. The core stabilization training protocol
10. Mattresses to implement the practice test
11. The wing Swiss ball exercises to implement

• Romberg test to evaluate static balance:

In this test, participants will be asked to open and close your eyes for 30 seconds with feet parallel to the stand. Fluctuations in person at the same time maintaining the balance and the situation is assessed, and excessive volatility, balance disorders or abnormal numerous steps. If your balance with your eyes open but with closed eyes cannot maintain, difficult to use sensory information - figure shows (Arian et al., 2010). The reliability of this test in healthy subjects with eyes closed eyes open 0.91 and 0.77 have been reported.

• Y test to measure dynamic balance:

To measure the dynamic balance of subjects, the test Y (Y BALANCE TEST) in three directions (anterior, posterior medial, posterior-external) are drawn with the angle of 135 degrees from each other, are used. Before starting the Y test, dominant leg will be determined subjects. If the right foot is superior fitness test conducted in counterclockwise and clockwise if left foot was superior in tests done.

Each subject performed three times in each direction, and the mean values were calculated and the length of the foot (in centimeters) from the anterior superior iliac spine to the inner ankle and lying supine on the ground to be measured divided and then multiplied by 100 to obtain the achievement gap as a percentage of leg length. Balance Test y valid 0.91 is.

3.4 Procedure

Data collection method:

After signing the consent to participate in research by parents and filling out forms and questionnaires of personal information PAR - Q and Targeted subjects randomly into two groups (10 patients in the experimental group and 10 in control group) were divided. Then the experimental group pre-test include: (Romberg test to evaluate static balance and dynamic balance test to evaluate Y), core stabilization exercise protocol consists of: (3 sessions per week for 8 weeks and each session was 45 minutes and include warm-up , stretching and strengthening exercises without the ball, Swiss ball, who first week include: 1. You're the abdomen in the supine position (3 rounds and each round of 20 repetitions), (2) your abdomen in the prone position, (3 rounds and each round of 20 repetitions), (3) your abdomen to the knee (3 rounds and each round 20 repetitions). The second week includes: 1. you the abdomen in the supine position (3 rounds and each round of 20 repetitions), (2) you have the stomach in the prone position (3 rounds and each round of 20 repetitions), 3. You're in the belly of the squat (3 rounds and each round of 20 repetitions). Third week: 1. You gather the

abdomen in the supine position with one leg (3 rounds and each round of 20 repetitions), (2) you roll up the stomach in the prone position with one leg (3 rounds and each round of 20 repetitions). 3. Paul unilateral (6 reps for each side of the body and 10-second pause). The fourth week include: 1. you hold the abdomen in the supine position with the upper limbs and hands and feet close together (3 rounds and each round of 20 repetitions), 2 squat with one leg bringing up the rear (20 repetitions for each leg three rounds and each round), 3. rotate the trunk from side to side holding weights (3 rounds and each round of 20 repetitions for each side of the body) and Swiss ball exercises with wings that fifth week include: 1. Sit on a Swiss ball and your practice to the belly (3 rounds and each round is 10 seconds), 2. Scott while Swiss ball between the wall and the shoulder (3 rounds, each round of 15 repetitions), 3-raising hands and feet simultaneously in the prone position (3 rounds, each round of 10 repetitions). Six weeks include: 1 launch route miles in a 45-degree angle to the left or right (3 rounds and each round 12 reps), 2. Paul (shoulder and one leg on the ground floor and raise the buttocks and legs (3 rounds and each round of 15 second pause), 3. thee in the belly lying on a Swiss ball so that the soles of your feet on the ground behind the ball and Switzerland (3 rounds and each round of 20 repetitions). week Seven: 1- and 15 repetitions of each round). 3. Paul a way to get a leg up with (6 reps for each side of the body and 10-second pause). Eight weeks include: eight weeks include: (1) lying supine on a Swiss ball and your practice with the belly up get a leg (3 rounds and each round of 20 repetitions), (2) raise the opposite arm and leg in a squat (3 rounds and each round of 20 repetitions), 3. Paul feet on a Swiss ball is so high get a leg (3 rounds and each round of 15 second pause) that during the break between rounds 1 minute and 5 minute cool-down was conducted between movements (Jeff Ray 2002). After doing core stabilization exercise from both the experimental and control groups post-test includes: (Romberg test to evaluate static balance and dynamic balance test to evaluate y) were performed.

3.5 statistical methods

To analyze the data, descriptive statistics to describe the data and determine the orientation of the center of each group (mean and standard deviation) of the Shapiro-one test to determine the normality of the data, covariance analysis to test the hypothesis, significance level 05 / 0 and SPSS software version 20 was used for calculations.

Table1 mean and standard deviation static balance with open eyes closed and dynamic balance training and control groups shows. Average rates static and dynamic balance shows that the average balance open eyes closed and dynamic balance in post-exercise control group further.

Table (1) describing the variables

Post-test		Pre-test		Group	Variable
standard deviation	Average	standard deviation	Average		
18.2	27.1	4.37	22.4	Practice	Static balance with open eyes (time in seconds)
3.6	26.2	3.1	23.4	Control	
4.14	23.1	4.36	18.2	Practice	Blindfolded in a state of static equilibrium (time in seconds)
4.5	22.9	3.1	18.9	Control	
13.1	75.81	10.6	62.71	Practice	Dynamic balance (are achieving cm)
9.50	57.59	9.50	57.5	Control	

Information provided in Table 1 shows that the average pre-test in static balance with open eyes, eyes closed in a state of static balance and dynamic balance training group, respectively, 22.4,

18.2, 62.71and in the control group, respectively, 23.4, 18.957.5 is (figures 1, 2 and 3).

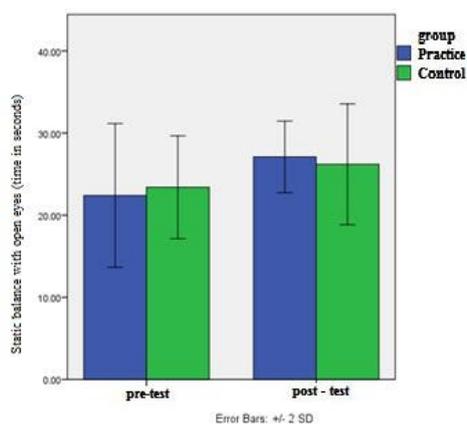


Figure (1) Average static balance with open eyes before - the post-test in two groups: research

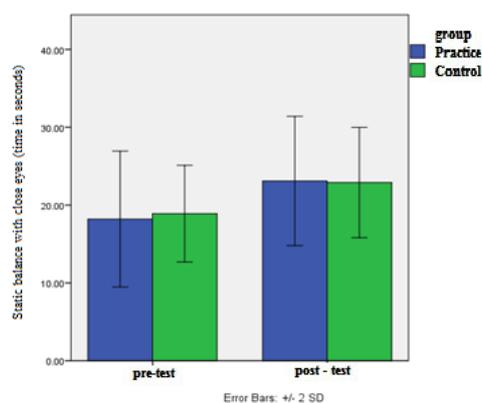


Figure (2) in a state of static equilibrium blindfolded average pre - and post-test in two groups: research

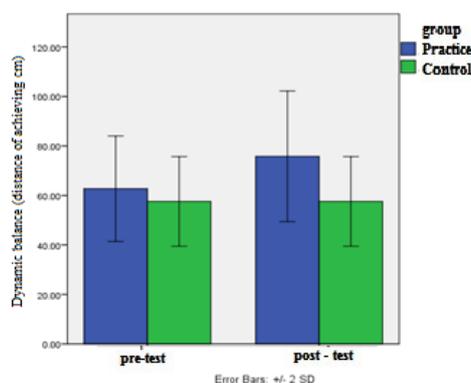


Figure (3) Average balance of static and dynamic pre - and post-test in two groups: research

#### 4 Analysis of the research findings

##### 4.1 Test assumptions of analysis of covariance (ANCOVA)

A) The nature of the data:

Vic Shapiro-test results Table 2 shows the data of static balance with open eyes in two independent variables were not normally distributed ( $0.05 > p$ ). Therefore, relevant data to static balance with open eyes using Mann-Whitney nonparametric test was tested.

On the other hand, static balance in a state of dynamic equilibrium eyes closed and normally distributed ( $p < 0.05$ ).

Thus, according to make two assumptions of homogeneity of the variety of line slope and linear relationship between variables and the dependent variable (see section below) to test hypotheses in a state of static balance and dynamic balance of covariance was used blindfolded.

Table (2) Shapiro-wilk test results

Post-test			Pre-test			group	Variable
Sig.	df	D	Sig.	df	D		
0.007	10	0.774	0.037	10	0.834	Practice	Static balance with open eyes (time in seconds)
0.003	10	0.738	0.292	10	0.914	Control	
0.063	10	0.853	0.687	10	0.952	Practice	
0.348	10	0.919	0.531	10	0.938	Control	Blindfolded in a state of static equilibrium (time in seconds)
0.357	10	0.920	0.477	10	0.933	Practice	Dynamic balance (are achieving cm)
0.585	10	0.943	0.585	10	0.943	Control	

Information presented in Table (2) shows that the average pre-test in static balance with open eyes, eyes closed in a state of static balance and dynamic balance training group, respectively, 0.037, 0.687, 0.477 and in the control group, respectively, 0.292, 0.531, 0.585is. The mean post-test static balance with open eyes, eyes closed in a state of static balance and dynamic balance training group, respectively, 0.007, 0.063, 0.357 and in the control group, respectively, 0.003, 0.348, is 0.585.

B) Assumption of homogeneity line slope:

F-test results in Table (3) show that the slope of the regression line in a state of static equilibrium data blindfolded and dynamic balance homogeneous study groups ( $P < 0.05$ ). Therefore, the assumption of homogeneity line slope is established.

Table (3) the results of assumption of homogeneity of slopes

Sig.	F	Variable
0.571	0.335	Static balance of closed eyes
0.792	0.072	Dynamic balance

C) The assumption of a linear relationship between the variables of the variety (pre-test) and the dependent variable (performance):

the dependent variable is the variety of covariance analysis to test the hypothesis static balance and dynamic balance used blindfolded.

Figures 4 and 5 shows the relationship between two variables and the dependent variable is linearly is the variety. Thus, according to assumptions contact data distribution, homogeneity line slope and the linear relationship between two variables and

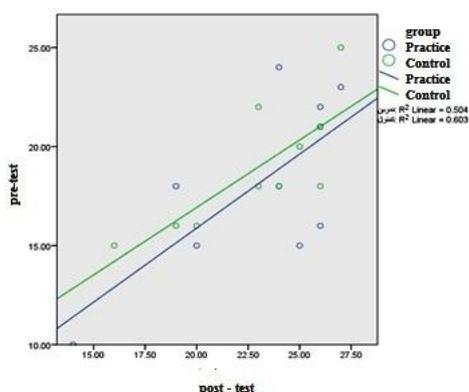


Figure (4) variable distribution of the Curite (pre-test) and the dependent variable in a state of static equilibrium eyes closed (post-test)

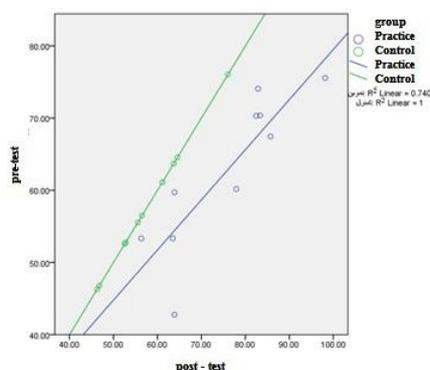


Figure (5) variable distribution of the Curite (pre-test) and the dependent variable dynamic balance (post-test)

**4.2 Testing hypotheses**

The first hypothesis assumes the following:

First, the null hypothesis: core stability training on balance in a state of blind girls with cerebral palsy spastic diplegia effect.

The results of analysis of covariance (ANCOVA) in Tables 4, 5 show that between static balance in the pre-test and post-test mode blindfolded there is a significant relationship (F (1, 17)

=19.67, p =0.000). Also, it was observed that core stabilization exercise significant effect on the balance of closed eyes is after controlling for pre-test. In other words, the average balance of closed eyes adjusted core stabilization training group (23.3) and control (22.63) there is no significant difference between (F(1, 17)=0.353, p =0.560). Therefore, the null hypothesis is confirmed.

Table (4) analysis of covariance

ETA <sup>2</sup>	Sig.	F	MS	df	SS	Source
0.536	0.000	19.6	143.6	1	143.6	pre-exam
0.020	0.560	0.353	2.58	1	2.58	Group
			7.30	17	124.1	Error

The first hypothesis assumes the following:

The second null hypothesis: core stability training on balance in a state of open-eyed girls with cerebral palsy spastic diplegia effect.

Due to the lack of normal distribution of data, static balance with open eyes in order to test this hypothesis pre-test and post-test

scores were low, Mann-Whitney test was conducted on the data. Mann-Whitney test results showed that the mean change in Tables 4, 5, and 6 static balance with open eyes girls with cerebral palsy spastic diplegia training group (4.7) and control (2.8) There was no significant difference (p =0.143, z = -1.55). Therefore, the null hypothesis is confirmed.

Table (5) Mann-Whitney

Sig.	Z	W
0.143	-1.55	85

The third null hypothesis:

Of core stability training on dynamic balance that girls with cerebral palsy spastic diplegia not affect.

The results of analysis of covariance (ANCOVA) Table 4-5 shows the dynamic balance between pre-test and post-test there

is a significant relationship (F(1, 17)=78.74, p =0.000 ). Also, it was observed that core stabilization exercise a significant effect on dynamic balance control after their pre-test. In other words, the dynamic balance between the average adjusted core stabilization training group (73.1) and control (60.24) there is a significant difference (F(1, 17)=32.17, p =0.000). Therefore, the null hypothesis is rejected. That is, core stabilization exercises resulted in significantly improved dynamic balance was elected.

Table (6) the results of analysis of covariance

ETA <sup>2</sup>	Sig.	F	MS	df	SS	Source
822.0	000.0	7.78	9.1895	1	9.1895	pre-exam
654.0	000.0	17.32	7.774	1	7.774	group
			07.24	17	2.409	Error

**5 Discussion and conclusion**

**5.1 Discussion**

Central nervous system combines the stability of the central nervous system and peripheral systems. The system of internal and external forces acting on the body's ability to process and system of the body active in the resistance against disturbing the balance right level of intensity control. Core stability can be divided into three sub-sections that include dynamic systems, static and nervous. In order to stabilize fit, the interaction of these systems is required. Defects in one or more than one system can have a delayed effect on core stability. Static balance can be made by bones, ligaments, tendons and connective tissues are organized. Active-balance system, refers to the muscle system is global and local .These textures can be actively shrunk and the forces of the ligaments and bones resist and more power to balance production and increases the stability of the central patio. Core stability exercises to reinforce the proprioceptive receptors. At the beginning of the proprioceptive receptors are highly stimulated and after a while earn a little consistency. But by the end of the message are sent to the CNS .Wireless joint body together to make a conscious understanding of the situation with the organs until change their status to be able to show the

necessary reaction. Information on posture from three sources collected and will be sent to the central nervous system. These include: Visual system, vestibular system and proprioceptive systems. Central nervous system receiving information from these three sources and integrating this information to maintain the balance of export orders. Wireless joint body together to make a conscious understanding of the situation with the organs to able to respond to reveal their status changes. Core stability and posture by maintaining the good condition during functional activities can prevent the occurrence of faulty movement patterns. Proper functioning of the body's center of maintenance of postural and dynamic postural balance during functional activities of destructive patterns that disrupt the balance will stop. When the body naturally works to keep the balance to control nerve and muscle function (such as static and dynamic balance) will give. People with nerve and muscle control and strength, core stability are good, with biomechanical chain will be the perfect move because it tends to affect the dynamic balance and posture is appropriate. Swiss ball exercises stimulates and strengthens the vestibular apparatus in the inner ear is responsible for balancing the public body. Receptors in the vestibular apparatus are sensitive to motion. Head movement stimulates and activates these receptors. As a result of impulses that are sent to the CNS are signs head. Vestibular apparatus to

control the movement of head and eyes when performing physical activity is responsible and the help maintain balance and body awareness through movement. Vestibular apparatus is sensitive to the location of the head in space And in order to achieve the goals of stability and postural orientation and sudden change of direction of the body to the CNS report. The role core stability exercises stimulate the nervous system - the cognitive, muscular - skeletal strengthen abdominal muscles, trunk muscles and pelvic floor muscles are. Swiss Ball Exercises to strengthen the role of the vestibular apparatus, visual and proprioceptive receptors in bone and pods is, is. Core stability is an important component in maximizing balance. Exercise improves balance.

## 5.2 Conclusion

The results of this study showed that a core stabilization exercise improves dynamic balance samples and the balance of girls with cerebral palsy spastic diplegia not affected, However, due to the fact that in the control group did not show any changes in static and dynamic balance can be improved dynamic balance in the experimental group attributed to the effect of core stabilization exercise. Limitations are as follows:

1. The mental attitude control subjects
2. Control hours of sleep the night before the test subjects
3. Individual differences subjects
4. Subjects for exercise motivation
5. The level of economic and social subjects
6. Fed subjects

According to the results of the above study that the positive effect core stability training on dynamic balance with cerebral palsy spastic diplegia, it is recommended that this training as a therapy to create and enhance their balance and occupational therapists are taken into consideration.

It is recommended that the:

1. Static and dynamic balance of people with cerebral palsy spastic plegias Mono.
2. Static and dynamic balance of people with cerebral palsy spastic hemiplegia.
3. Static and dynamic balance spastic quadriplegic cerebral palsy sufferers.
4. Static and dynamic balance of people with cerebral palsy spastic hemiplegia more.

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## FACTORS AFFECTING THE FORMATION OF CITIZENSHIP BEHAVIOR OF BRAND AMONG ASIA INSURANCE STAFF

<sup>a\*</sup>SARA BEIGI, <sup>b</sup>BEHNAM ESMAEILI FAR

<sup>a</sup>*Department of Management, ISLAMIC AZAD UNIVERSITY Central Tehran Branch, Tehran, Iran*

<sup>b</sup>*Department of Management, ISLAMIC AZAD UNIVERSITY Central Tehran Branch, Tehran, Iran*

Email: <sup>a</sup>Sara.beigi.si@gmail.com,

<sup>b</sup>behnam.esmailifar.b@gmail.com

**Abstract:** In the last few years, it has been very difficult to differentiate insurance products in competitive markets. The aim of this study was to investigate the factors affecting the formation of the Asia Insurance citizenship behavior. The population in this study is employees of Asia Insurance which the number of 140 Employees were used by available method. To test the research hypotheses, structural equation modeling and Lisrel 8.8 software were used. The findings suggest that the relationship between domestic brand management and employee commitment to the brand, employee commitment to the brand and brand citizenship behavior, did not exist. The relationship between job satisfaction and citizenship behavior of brand was approved. Finally, suggestions for managers is presented.

**Keywords:** brand citizenship behavior, employee commitment to the brand, domestic brand management, job satisfaction, Asia Insurance

### 1 Introduction

In the last few years, differentiating the insurance products in competitive markets have been very difficult (Ranjbarfard and Bakhtiari, 2011). This becomes more difficult when according to official statistics of the Central Insurance of Iran, more than 20 brands with more than 15 distinct types of services were working at the end year 2013 (Central Insurance of Iran, 2014). Brand is considered as a tool for differentiation and competitive advantage for products and services provider (Keller, 1993). Brand means a name, term, sign, design, symbol or any other feature that cause differentiation and provide products and services (Dibb et al., 1997). Imagine of customers and their experiences are often influenced by the behavior of employees and their doing tasks. Porricelli and colleagues (2014) believe that words like brand ambassador, Brand Champions, Living the Brand is influenced by spirit of employee behavior. This behavior is part of a larger concept under the Citizenship behavior of brand (Porricelli et al., 2014). According to official statistics of Central Insurance, Iran Insurance with more than 45% of the market share, is ranking first in Asia and the Asia Insurance company as the largest private insurance company, with over 10% share of the insurance market is in second place (Central Insurance of Iran, 2014). So in this research we seeks to answer the question that what are the factors affecting the formation of a brand citizenship behavior of employees in Asia Insurance?

### 2 The theoretical and background of research

#### 2.1 Brand Citizenship behavior

Citizenship behavior of brand is a brand-related concept which recently has become the research topic of interest among the marketing and management researchers. As mentioned in the introduction, recently the concept of organizational citizenship behavior has been applied to the Citizenship behavior of brand. Therefore it is necessary in this section that first examine organizational citizenship behavior. The difference between brand citizenship behavior and organizational citizenship behavior which was raised by Berman and Zeppelin (2005) was that organizational citizenship behavior is the concept which is concerned inside of the organization; while, Citizenship behavior of brand is a concept beyond Within the organization By considering actions outside of the organization (Berman and Zeppelin, 2005). Berman et al. (2009) describe the brand citizenship behaviors as keep alive the brand by staff (Berman et al., 2009). Organizational citizenship behaviors of brand pays attention by considering behaviors, to the behaviors of the

organization. Based on the fact that the behavior of their citizenship also involves behavior that is directed towards external target groups, from a perspective, citizenship behavior is wider than the organizational citizenship behavior. On the other hand, because citizenship behavior of brand instead of focus on the entire organization, it focuses only on the brand, and has a narrower range than the OCB (Berman and Zeppelin, 2005).

The first research to identify the citizenship behavior of brand was done by Berman and Zeppelin (2005) and identified seven dimensions for it. Then they began to reform their suggestion and reduced the number of dimensions to three dimensions (Berman et al, 2009). Although some other said that citizenship behavior of brand is one-dimensional so brand equity is based on staff (King & Grace, 2010).

In one-dimensional approach, View of Citizenship behavior of brand is limited to behaviors based on brand within the organization. But, multi-dimensional approach is more comprehensive, and in addition to considering one dimensional, is paying attention to convey brand concept to foreign costumers and stakeholders by the staff. Authors are believing that according to wide target groups which insurance companies are facing, citizenship behavior of brand seems to define the one dimension better due to its comprehensive approach. To convey the brand values of the organization to target population, first Staff should be familiar with organization brand. Thus, One-dimensional approach is considered as a prerequisite for a multi-dimensional approach (Porricelli et al., 2014). Thus, citizenship behavior of brand is measured by three dimensions brand acceptance, brand enthusiasm and brand development.

#### 2.2 Job Satisfaction

When someone says he has job satisfaction, this means that he really likes his job, has good feeling toward his job and considers great value to the job. Results show that staff with higher job satisfaction are in good manner mentally and physically. Job satisfaction is a kind of positive psychological feeling which one has towards his job and is generated by factors such working conditions, organization of job, relations governing workplace and cultural factors (Mura & Longo, 2012). A single factor will not lead to job satisfaction, rather a certain combination of various factors cause someone at a certain time feel satisfying toward his job and tell himself that he is satisfied with his job and enjoys it. By influences of various factors such as income, social value of job, working conditions and employment products at different times, someone can feel satisfied toward his job. Generally, human behavior is a complicated action and there is not much reason indicating that Important sustainable as job satisfaction should only be resulted from A category of factors (Rayton, 2006). Job satisfaction is a set of adaptive and maladaptive feelings which staff look to their work with those feelings (Dehghan, et al., 2011). Job satisfaction is one of the most common organizational behavior variables which indicates general view point of someone toward his job (Riley, 2006). A person who has high job satisfaction has positive attitudes towards his job, while a person who is not satisfied with his job, has negative attitudes towards his job (Xie, et al., 2014). From another perspective, Job satisfaction is considered as a full emotional response to the working conditions and environment. Somewhere else, Job dissatisfaction is discussed, it means the contrast between what one expects to receive from his work and what the person actually received.

#### 2.3 Domestic Brand Management

As Foreign branding by Advertising and strong brand Treaty, facilitates the customer's decision-making process, Companies have found that Promote the brand message through inside has the equal value. Internal branding within the organization to

promote brand means staff is mentioned (Ahmed & Rafiq, 2003). Since the internal branding creates a common understanding of the brand throughout the organization, Enables staff At the time of exposure problem, apply Brand Treaty.in this case, In short we can say that Internal branding cause employees understand the brand values and by combining them In creating brand reality affect Beneficially on The attitude of staff And forming their behavior to integrate to the brand (Drake et al., 2005). Branding services and products both on external orientation, including market segmentation and identify the market opportunities and positioning the same brand. However, services branding has internal orientations through employee participation in the branding process. In traditional marketing to brand marketing was only paid attention to foreign customers. Continued and qualified delivery of services based on the brand promise is where staff are entering branding process. Fulfilling the brand promise to customers when they experience is confirming a statement which organization has expressed about external branding efforts Such as advertising (Berman & Zeplin, 2005).

#### 2.4 Employees' commitment to the brand

Commitment to the organization represents the employees' degree of intervention and conflict with the goals of organization

and their interest to pursue working in the organization. Commitment to the organization can be known as "someone's sense of belonging to the organization and his sense of responsibility towards the goals of organization", also it is defined as people's willingness to provide energy and loyalty to social system (Ng & Feldman, 2011). In fact organizational commitment is a reflection of emotional attachment of the person to the organization and his identification with its objectives (Golparvar & AriziSamani, 2010). Components of commitment can be expressed in three cases: first the person should accept the values and objectives of the organization; second he should have the desire to attempt toward achieving organizational goals; and third he must have intense desire to be a member of the organization (Porter et.al, 1974). In this study the concept of employees' commitment towards brand of organization is of interest. Commitment to the brand and emotional and mental connection to the brand are defined. In fact commitment to the brand is the strong desire of employees to keep the brand. Being committed to the brand, the person knows the brand as his sign of personality and existence and does his best to keep it.

After reviewing literature review, figure 1 was selected as a theoretical model.



Figure 1. Theoretical model of the study

The hypotheses are as follows:

Hypothesis 1: internal brand management influences the employees' commitment to the brand.

Hypothesis 2: internal brand management influences citizenship behavior of the brand.

Hypothesis 3: internal brand management influences staffs' job satisfaction.

Hypothesis 4: staff' commitment to the brand influences the citizenship behavior of the brand.

Hypothesis 5: employees' job satisfaction influences the citizenship behavior of the brand.

Hypothesis 6: employees' job satisfaction influences their commitment towards the brand.

#### 3 Research method

This research from purpose view is practical. Also the method of data collection is descriptive or non-experimental, and since it has analyzed the nature, conditions, and relations between phenomena and variables, it is of survey and correlative kind. This study considering the criteria of time, it is cross-sectional. Also considering the degree of its depth, is of broaden studies (observational and low depth) and in comparison to deep studies. Statistical population of the present study consisted of the managers and employees of Asia insurance company in Tehran. Considering the limitations of accessing to all the staffs, 200 employees of Asia insurance company who had the possibility to answer the questionnaires were selected. According to Cochran 2 formula for limited population and at the P-value of 0.05 it is necessary that 132 employees who are accessible be selected. In this study data collection was through questionnaire. Table 1 represents the questionnaire of the present study. The value of Cronbach's alpha values for every component is also presented in this table.

Table 1- questionnaire

variable	component	question	Cronbach's alpha
Citizenship behavior of the brand	Brand acceptance	1-5	0.79
	Brand development	6-9	0.76
	Brand adherence	10-15	0.75
Internal brand management	Brand nature	16-18	0.82
	Brand leadership	19-22	0.81
	Brand connections	23-26	0.71
Commitment to the brand	-	27-32	0.76
Job satisfaction	-	33-38	0.77

#### 4 Findings

In this study, according to the results obtained by descriptive statistical analysis and demographic characteristics of respondents, the findings are presented in Table 2.

Table 2. Demographic characteristics of respondents

		Frequency	percentage
sex	Male	53	37.9
	Female	87	62.1
Marital status	single	35	25
	married	105	75
age	Under 25	52	37.1
	25-34	54	38.5
	35-44	20	14.2
	Over 45	14	10
Education level	Associate degree and under it	13	9.2
	Bachelor	70	50
	Master	48	34.2
	PhD	9	6.4
Job experience	Less than 5 years	23	16.4
	6-10 years	24	17.1
	11-15 years	47	33.5
	16-20 years	30	21.4
	21-25 years	11	7.8
	More than 25 years	5	3.5

#### 4.1 Analyzing research hypothesis

Hypothesis 1: internal brand management influences employees' commitment towards the brand.

According to table 3, the effect of internal brand management on employees' commitment does not have a significant influence;  $t=1.69$ .

Hypothesis 2: Internal brand management influences citizenship behavior of the brand.

According to table 3 the effect of internal brand management on citizenship behavior of the brand has standard variation of .65 which has the value of  $t=2.93$ .

Hypothesis 3: Internal brand management influences employee's' job satisfaction.

According to table 3, the effect of internal brand management on employees' job satisfaction has standard variation of 0.69 which has the value of  $t=6.95$ .

Hypothesis 4: employees' commitment towards the brand influences the citizenship behavior of the brand.

According to table 3, the effect of employees' commitment toward the brand does not have a significant influence,  $t= - 0.23$ .

Hypothesis 5: employees' job satisfaction influences the citizenship behavior of the brand.

According to table 3, the effect of employees' job satisfaction on the citizenship behavior of the brand has standard variation of 0.28,  $t= 2.45$ .

Hypothesis 6: employees' job satisfaction influences their commitment towards the brand.

According to table 3, employees' job satisfaction does not have a significant influence on their commitment towards the brand,  $t= 0.39$ .

Table 3 summary of research hypotheses

hypothesis	path		Statistics t	Path coefficient	Hypothesis result
	from	to			
1	Internal brand management	Employees' commitment to the brand	1.69 ns	0.11	failed
2		Brand citizenship behavior	2.93	0.65	confirmed
3		Employees' job satisfaction	6.95	0.69	confirmed
4	Employees' commitment to the brand	Brand citizenship behavior	-0.23	-0.19	failed
5	Employees' job satisfaction	Brand citizenship behavior	2.45	0.28	confirmed
6		Employees' commitment to the brand	0.39	0.09	failed



Figure 2. Represents the final model of the study.

Figure 2- final model of research (numbers inside parenthesis are statistics t and numbers out of parenthesis are standard path coefficient)

## 5 Conclusion and discussion

In the one-dimensional approach of brand citizenship behavior, the view of citizenship behavior towards behaviors based on the brand are limited within the organization. But multi-dimensional approach of brand citizenship behavior is more comprehensive and in addition to covering the one-dimensional approach, it concerns the transference of brand concepts to customers and other stakeholders by employees. The authors of this study believe that considering the vast number of target groups that insurance companies are facing, citizenship behavior of the brand seems more comprehensive compared to one-dimensional approach. Since in order to transfer brand concepts and values of organization to the target society, first the employees of the organization should become familiar with the brand of the organization. As a result one dimensional approach is in some ways a prerequisite for multi-dimensional approach.

Real tribute to the employees, empathy and sympathy of the leader or senior managers of the organization, delegating to staff, loyal testament of the organization to employees and customers, community based behaviors, information sharing and activities like these builds trust in employees towards the brand. When senior managers are committed to employees, there is also the possibility to transfer this commitment from employees to customers. In fact there would be a cascading flow movement in the whole organization. This flow also causes the appearance of various kinds of brand based behaviors and return of external customers with more intensity towards the goals and visions of the organization.

To provide an environment of networked interactions, building trust in employees toward the brand and making them committed towards the brand it is necessary that activities which appease employees be undertaken. The human resources manager in addition to transferring brand concepts to employees at the time of employment and selection, must organizes training courses over the career path to ensure that they have gained sympathy with the brand. Organization members have diverse needs, that meeting their needs within the organization's mission statement and according to the interests of the parties is not far-fetched. Developing job path, promoting cooperation based on trust between employees, developing relationship between employer and employees, and activities like this, induces the impression to the employees that they are important to the organization and the organization is committed to them. This feeling results in employees' commitment towards the brand. Another aspect of brand management is related to activities out of organization such as advertisements, having communication with the customer, promotion activities, and like them creates loyalty in external customers to the organization or brand. Brand based behaviors from employees not only improves long-term relationships between external customers and organization, but also transfers the trust and commitment of employees to

customers. Customers' commitment towards the brand completes and strengthens the cycle of managers' commitment to the organization and employees, employees' commitment to the organization and customers.

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## INVESTIGATION OF THE RELATIONSHIP BETWEEN SERVANT LEADERSHIP WITH EMPLOYEE SATISFACTION AND COMMITMENT WITH THE MEDIATING ROLE OF PSYCHOLOGICAL EMPOWERMENT IN SOCIAL SECURITY ORGANIZATION

<sup>a\*</sup>NASTARAN NOROZI, <sup>b</sup>SHAHRAM BEGZADEH

<sup>a\*</sup>M.Sc. Student, Department of Management, School of Management, Parsabad e Moghan Branch, Islamic Azad University (IAU), Parsabad e Moghan, Iran

<sup>b</sup>Faculty Member, Department of Management School, Parsabad e Moghan Branch, Islamic Azad University (IAU), Parsabad e Moghan, Iran

Email: <sup>a\*</sup>norouzi.n@gmail.com, <sup>b</sup>shahrambegzade@gmail.com

**Abstract.** Instability and complexity may be too low and predictable environment on the impact of emerging leadership. In an unstable environment, a new style of management which enables the development of intangible assets and capabilities to enable dynamic activity, it is important. With this interpretation of the purpose of this study was to determine the relationship between servant leadership and commitment of staff satisfaction with the mediating role of psychological empowerment. The purpose of applied research and study of the nature and content of the survey is descriptive and correlational. In this study, random sampling method is available. The results showed that servant leadership theories with satisfaction and employee commitment had a significant relationship with the mediating role of psychological empowerment.

**Keywords:** Servant Leadership, Employee Satisfaction, Employee Commitment, psychological Empowerment, Social Security Organization in Ardabil Province

### 1. Introduction

Today, the Department of large organizations and advanced owes everything to competent manager, informed and competent with the knowledge and management techniques have been successful in carrying out this important task (LAN and Wei, 2015). One of the tasks of managers in process management, leadership and organization. In fact the essence of leadership, and is increasing its considerable influence exerted by leaders on subordinates and is an institutional priority (Ergeneli, et al., 2007). This led one of the prominent features and essential feature of any real manager. Conditions, the nature of their work and tasks and characteristics of selected employees. Leadership of an organization to adapt to change and to survive and thrive in new environments, specific features generally requires managers to respond to them are facing many problems (Lee et al., 2015). One of the most important characteristic that can help leaders and managers in response to these changes, is servant leadership. Among the important factors that could cause extensive research in the field of management, the appeal of the concept and style of management (Ambali et al., 2011). Because no matter when executives began to do "what" to do something, create a new way for teams or stimulate activity, however, is that their success depends on "how" to do this. Burns (2010) found that managers with the management style of his servants to challenge others to do exceptional things and trying urge. Larry Spears identified ten main properties which are central to the development of a servant-leader. These specifications are listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to growth of people, and building community. Burns continued his argument stating that "the only style of servant managers that are able to draw the necessary routes for organizations because they are the source changes, the changes are fully dominant aristocracy and the winds of change are at" (Petrimulex, 2012).

In the meantime, employees of an organization to adapt to changes and trends in order to survive and thrive in new environments, specific features generally requires managers to respond to them are facing many problems. One of the most important characteristic that can help leaders and managers in response to these changes, leadership behaviors. Employees subject tendencies that try to explain and define the role of attitudes in human capabilities. Employees that have appropriate behaviors, effective resources that the targets with maximum productivity, satisfaction and commitment make researcher (Hafmann, 2012). Today, many organizations are subject to

change and any change requires employees and managers to be adaptable and adapt to changes. The social interaction in a proper way and fruitful for most managers and leaders has become increasingly important as a key element in the management of organizational changes. Studies have shown that overtaking will be future managers and effective so that they can effectively communicate with their human resources and their behavior and attitudes appropriate to take a position (DonPage and Paul, 2014). psychological empowerment of employees through the process of strengthening the feeling of self-identification and elimination of those organizational conditions that lead to powerlessness and inability to have them Managers using the mechanism of leadership and approaches to the elimination of powerlessness and inability to create the tendencies in human resources employees (Msbtrgray and real insight) in the direction of the organization. The main problem in this study is whether the satisfaction of servant leadership and staff commitment had a significant relationship with the mediating role of psychological empowerment? This study investigates the mediating role of job involvement in servant leadership and the mediating role of psychological empowerment in social security organization. The next section proposes the theoretical foundations and the literature and elaborates on the conceptual pattern and theories.

### 2. Research Method

The purpose of applied research and study of the nature and content of the survey is descriptive and correlational. The study also in terms of field data collection and questionnaire tool. The population of this research included all employees and managers of social security Ardabil province a total of 207 persons. Morgan will be used to select the sample studied sample of 130 people with 95% reliability is achieved. In this study, random sampling method is available. Collecting the required data, the field using a standard questionnaire. Referring to the workplace in Ardebil province will be the Social Security Organization. Three questionnaires were used to collect data, a questionnaire that will be used in the form of a single form. Scale questionnaire consisted of servant leadership (Lan and Wei, 2015) consists of 24 questions, a standard questionnaire Ergeneli, et al., (2007), consists of 15 questions in order to assess the psychological empowerment and ultimately standardized questionnaire Hoffman (2012) in order to measure the adherence of work (satisfaction and employee commitment) consists of 10 questions (5 questions about employee satisfaction and employee commitment 5 items), respectively.

Conceptual model is a model based on the theoretical relationship between the factors and variables affecting the subject of research. Figure 1 depicts the conceptual pattern of the present research.

The above model presents that servant leadership directly affects social security organization and indirectly when mediated by job involvement. In addition, job involvement, also, has direct effects on social security organization.

### 3. Finding

In this study, a questionnaire was used for data collection. Therefore, using confirmatory factor analysis research questionnaires about the overall structure of content is validated. For confirmatory factor analysis and structural equation modeling standard loadings and t-statistic is calculated. (Figures 1, 2, 3). Also, the results of the evaluation of the structural model are presented in table 1.

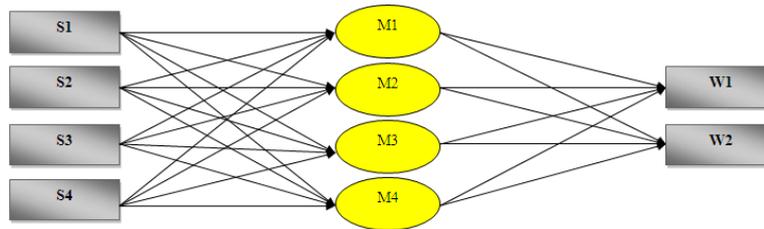


Figure 1. Conceptual model

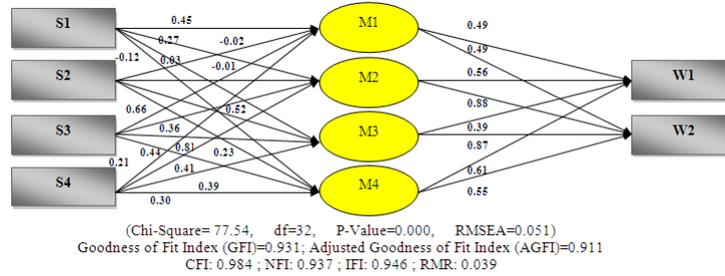


Figure 2. The relationships between variables

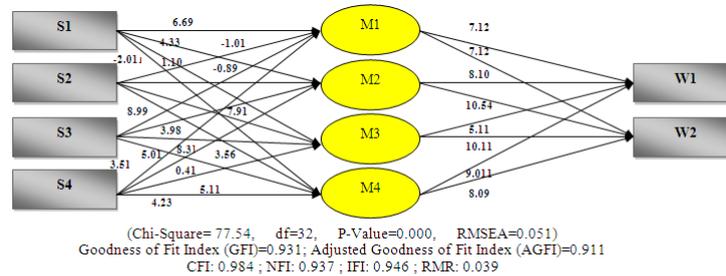


Figure 3. Significant numbers of variables

Table (1): The results of the evaluation of the structural model

Path to from	Data	t	Bias	Lower Bounded	Upper Bounded	sig
xyz	0.549	2.135	0.0007	0.00022	0.0894	0.034
xye	0.223	2.433	0.0006	0.00035	0.0824	0.015
x1yz	0.155	2.049	0.0005	0.00025	0.0885	0.041
X2yz	0.310	2.555	0.0060	0.00055	0.0748	0.011
X3yz	0.201	2.183	0.0055	0.00011	0.0807	0.030
X4yz	0.223	2.433	0.0088	0.00088	0.0801	0.015
x1ye	0.243	2.555	0.0054	0.00095	0.0777	0.009
X2ye	0.017	4.017	0.0007	0.00074	0.0811	0.000
X3ye	0.449	4.386	0.0006	0.00068	0.0963	0.000
X4ye	0.128	2.304	0.0099	0.00027	0.0325	0.022

Due to the amount of t-test statistics calculated for the difference between intervals +1.96 and 1.96 is not (critical region of 95%), on the one hand due to the significant level calculated that less than the level of accuracy (0.05), which was also due to lack of zero between lower and upper confidence interval for this route and thus confirming the hypothesis suggests a significant way related to it. (table1).

The findings of this research confirmed the positive effect of server leadership on job satisfaction. These findings are coordinated with the results of researches that has been carried out by Scuderi (2010). The findings of this research confirmed the positive effect of server leadership on organizational citizenship behavior (H4). These findings are coordinated with the results of other researches (Zehir et al., 2013). The server leaders provide peace, security and confidence in the work atmosphere, which increases the citizenship behaviors of the staff.

In addition, job involvement has positive correlation with commitment, organizational citizenship behavior, motivation, and positive performance and has negative correlation with absenteeism and turnover. Job involvement is also associated with the identification. The involved individual usually knows his job as introducer for himself (Kahn, 1999). Thus, with respect to the benefits of job involvement for organizations, and on the other hand, servant leadership which has a positive relationship with job involvement, top managers of most organizations are recommended to develop serving in order to take advantage of job involvement.

**4. Conclusion**

The design of this study is descriptive in nature. To examine the research question, one sample t-test and structural equations modeling were used. The obtained data from the instrument were

put into SPSS 20 for data analysis that proposed the following issues:

1. By creating an exchange of ideas between think tanks and human resources, exchange of knowledge between employees and managers, and integrate the context of a strong sense of commitment to the goals of the Bank provides
2. According to the kindness and love of their heads and make it operational.
3. In order to promote independence as a lever Trust staff also recommended that the deputies and executives from the principle of absolute authority.
4. By creating think tanks and holding brainstorming sessions, field staff and provide dynamic interaction between them and creating the atmosphere full of peace and humility provide.
5. By improving the work life and continued support for the staff, improve human capital at all levels provide banks.

The servant leadership topic is important for all organizations so it is suggested that leaders of organizations take this topic as a serious business and foster it as much as possible in order to improve organizational identification and job involvement. Without a shadow of doubt, job involvement has undeniable benefits and it is associated with organizational identity. It also has significant benefits for organizations. So the servant leadership can serve as a bridge to cross today's turbulent and changing environment. In conclusion, it should be highlighted that scientists should conduct more researches investigating different aspects of this field of research in various contexts.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## INVESTIGATE THE EFFECT OF APPLYING INFORMATION TECHNOLOGY IN INCREASE ADMINISTRATIVE HEALTH

<sup>a\*</sup>GHOLAM REZA RAHIMI, <sup>b</sup>TAHER PAZIREH

<sup>a</sup> *Department of Public Administration, Bonab Branch, Islamic Azad University, Bonab, Iran (Corresponding Author)*

<sup>b</sup> *PhD Candidate of Public Administration, Bonab Branch, Islamic Azad University, Bonab, Iran*

Email: <sup>a</sup>G.R.Rahimi.bnb@gmail.com,

<sup>b</sup>Taher.Pazirehs@gmail.com

**Abstract:** The main purpose of this research was to investigate the effect of applying information technology in increase administrative health. The statistical population of the research are the staffs of Social Security Offices of west Azerbaijan province that their number is 1600. The sample size using Morgan table was estimated 309 persons and they were selected by cluster sampling method. The validity of questionnaires was approved by the supervisor and a handful of management teachers and its reliability was confirmed by Cronbach's alpha that for information technology and administrative health questionnaires, were 0.85 and 0.88 respectively. The obtained results indicated that there is positive relationship between applying information technology and administrative health of the staffs of social security offices of west Azerbaijan province.

**Key words:** Information technology, health administrative, social dimension, political dimension.

### 1 Introduction

According to the domestic and international evidences Iran is one of the most corrupt countries in the world .according to science survey in the monthly research economic journal that has been done in 2002, it has been identified that about two-thirds of respondents were grappling with the problem of bribery and have been paid the bribery (Khezri, 2008) also the institute of international transparency in his 2014 report ranked Iran in 136 in terms of administrative and economic corruption index.

Corruption that is the contrast point of official health suffered both developed and developing societies and exploring about it suggests that corruption inhibit the growth of competition and neutralization of activities in order to reduce poverty and social discrimination and by negative effect on efficiency and effectiveness of the system of official health leads to waste national resources and thus reduce the effectiveness of the government in the conduct of affairs and people's confidence in government and non-state organizations. Corruption also weakens the incentives, social harms or weaken existing institutions, inequitable distribution of resources and the political losses and finally results in economic losses. United Nations Development Programme (UNDP) defines corruption as the abuse of public and administrative power for personal gain through bribery, extortion, nepotism, fraud and embezzlement. And equals it with "Increasing monopolization of power and personal discretion and reducing accountability, trust and integrity and transparency" (International Transparency Organization, 2004). The results show that corruption is caused by multiple and wide factors. In such a way that cultural, social, economic, political and administrative factors were diagnosed for this phenomenon. Also focusing on, preemptive actions instead of punishing of culprits, following regular and systematic anti-corruption programs, emphasis on corporate culture and strengthen it as part of general society and finally address the problems of organization, administrative structure and analysis on the basis of sociological approach in order to reducing official corruption have been proposed as basic solutions (Ghaderi, 2010). Another tool that is effective in reducing corruption and improving administrative health is advanced information and communication technologies (Khezri, 2008). Internal changes and evolution of disease-oriented approaches to holistic health and individualization to the community in recent years and significant progress in information technology in the world have followed

The idea of using information and communication technologies in improving the quality of services organizations (Matolx et al., 2007).

Innovation and change is a unique feature of the third millennium, referred to as the age of information, many countries have found that the age of the information is the arena of organizations that have served the capabilities of information technology to their services and they take actions with effective approaches in order to reproduce and rebuild the bureaucracy and generally in social system (Zahedi, 2005).

Experiences from various countries indicate that corruption is a complicated, hidden and varied affair. In fact, corruption in the administrative aspects and other aspects of society is such as an infection, if penetrate in the limbs and body of society, makes infectious its members one after another and destroy them and even may corrupt all the society. Since the social security administration deals with in a sense that people are concerned with the health and insurance and also in terms of the extent of the scope of its business is exposed to official corruption the problem of corruption and ways to combat it has always been a concern for officials and administrators. In the meantime, one of the tools that appear to be useful in the prevention of corruption and administrative health promotion is information systems. However there are some conflicts between researchers and experts on the health effects of information systems. Therefore with regard to the stated materials the aim of this study is to find an answer to this question that what effects the applying IT on increasing health administration in the Social Security offices in Western Azerbaijan province.

### 2 Methodology

The method of the study is survey-descriptive. The statistical population of the research are the staffs of Social Security Offices of west Azerbaijan province that their number is 1600 person. The sample size using Morgan table was estimated 309 persons and they were selected by cluster sampling method. The tool for data gathering were questionnaires, the standard questionnaire of information technology of Mostafae (2009) and standard questionnaire of administrative health of Mc Kasker (2006) .the validity of questionnaires was approved by the supervisor and a handful of management teachers and its reliability was confirmed by Cronbach's alpha that for information technology and administrative health questionnaires, were 0/85 and 0/88 respectively .the collected questionnaires were analyzed by (Kolmogorov Smirnov and Pearson tests. The tool for data gathering were questionnaires, the standard questionnaire of information technology of Mostafae (2009) and standard questionnaire of administrative health of Mc Kasker (2006) .

### 3 Findings

Statistical indicators (central and dispersion) research variables are show in Table 1 below.

Table 1. Statistical indicators (central and dispersion) research variables

variables	mean		Max	Min	range	Sample size	SD
	Standard error	statistics					
Administrative health	0.01201	2.852	4.65	1.50	2.80	309	0.31420
Administrative Agent	0.2213	3.625	5.02	2.75	2.17	309	0.41011
Political factor	0.03202	3.325	3.02	1.36	1.80	309	0.33111
Economic factors	0.01652	2.485	3.74	2.02	1.75	309	0.27296
Social factors	0.02419	2.845	5.06	2.02	3.00	309	0.12277
Information Technology	0.02451	3.751	4.18	1.84	2.40	309	0.42419

### 3.1 Kolmogorov-Smirnov test

As it can see in table 2, for all variables of the research the significance of the test is bigger than error level of 0/05 (P-value=sig> 0.05).it means that all variables of the research with 95 percent confidence are normal and the null hypothesis of the test is confirmed.

Table 2: Kolmogorov-Smirnov test to fitness of normal distribution

variable	number	Kolmogorov-Smirnov test	sig	result
Administrative health	309	063.1	068.0	normal
Administrative factor	309	093.1	054.0	normal
Political factor	309	935.1	124.0	normal
Economic factor	309	9830.	4320.	normal
Social factor	309	976.0	389.0	normal
IT	309	3211.	067.0	normal

### 3.2 Hypothesis testing

#### The main hypothesis test:

Applying IT is effective in applying health administration in Social Security offices in Western Azerbaijan province.

As it can see in table 3, the significance of the correlation test is smaller than error level of 0/05

(P-value=sig< 0.05).it means that the correlation between applying IT and health administration is significant with 95 percent confidence and an assumption of lack correlation between two variables is rejected. The positive correlation means that two variables have direct relationship with each other it means that by increasing applying IT the value of health administration in Social Security offices in Western Azerbaijan province increases.

Table 3: Pearson correlation test for the main hypothesis

variable	Staff's performance	
	Applying information technology	Number of observations
Pearson correlation coefficient		0.425
significance		0.000

Testing the first sub hypothesis; applying IT is effective in increasing administrative factor of official health Social Security offices in Western Azerbaijan province.

As it can be seen in table 4 the significance level of the correlation test is less than 0.05 (P-value=sig< 0.05).resulted that the correlation between applying IT and office factor of health is

significant with 95 percent confidence and the assumption of lack of correlation is rejected. The positive value means that two variables have direct relationship with each other.it means that by increasing applying IT the amount of administrative health system increases in Social Security offices in Western Azerbaijan province.

Table 4: results of Pearson correlation test for first subsidiary hypothesis

variable	Administrative factor	
	Applying information technology	Number of observations
Pearson correlation coefficient		0.412
significance		0.000

**The second sub hypothesis:** applying IT is effective in increasing political factor of official health Social Security offices in Western Azerbaijan province.

As it can be seen in table 5 the significance level of the correlation test is less than 0.05 (P-value=sig< 0.05).resulted that the correlation between applying IT and political factor of health

is significant with 95 percent confidence and the assumption of lack of correlation is rejected. The positive value means that two variables have direct relationship with each other.it means that by increasing applying IT the amount of political health system increases in Social Security offices in Western Azerbaijan province.

Table 5: results of Pearson correlation test for second subsidiary hypothesis

variable	political factor	
	Applying information technology	Number of observations
Pearson correlation coefficient		0.258
significance		0.004

**The third sub hypothesis:** applying IT is effective in increasing economic factor of official health Social Security offices in Western Azerbaijan province.

As it can be seen in table 6 the significance level of the correlation test is less than 0.05 (P-value=sig< 0.05).resulted that the correlation between applying IT and economic factor of

health is significant with 95 percent confidence and the assumption of lack of correlation is rejected. The positive value means that two variables have direct relationship with each other.it means that by increasing applying IT the amount of economic health system increases in Social Security offices in Western Azerbaijan province.

Table 6: results of Pearson correlation test for third subsidiary hypothesis

variable	economic factor	
	Applying information technology	Number of observations
Pearson correlation coefficient		0.312
significance		0.004

**The fourth sub hypothesis:** applying IT is effective in increasing social factor of official health Social Security offices in Western Azerbaijan province.

As it can be seen in table 7 the significance level of the correlation test is less than 0.05 (P-value=sig< 0.05).resulted that the correlation between applying IT and social factor of health is

significant with 95 percent confidence and the assumption of lack of correlation is rejected. The positive value means that two variables have direct relationship with each other.it means that by increasing applying IT the amount of social health system increases in Social Security offices in Western Azerbaijan province.

Table 7: results of Pearson correlation test for fourth subsidiary hypothesis

variable	social factor	
	Applying information technology	Number of observations
Pearson correlation coefficient		0.441
significance		0.004

#### 4 Discussion and Conclusion

The main purpose of this research was to investigate the effect of applying information technology in increase administrative health.

Results indicated that applying IT is effective in increasing official health of Social Security offices in Western Azerbaijan province and this is consistent with findings of other researchers (Ahmad Baladehi et al., 2014) and it is inconsistent with findings of Farhadi and Mottaghian (2014). Therefore managers and authorities in Social Security offices in Western Azerbaijan province should use the newest technologies and information and communication technologies and in this way increase the amount of official health.

Results indicated that applying IT is effective in increasing administrative factor health of Social Security offices in Western Azerbaijan province and this is consistent with findings of other researchers (Ahmad Baladehi et al, 2014) and it is inconsistent with findings of Farhadi and Mottaghian (2014).therefore managers and authorities in Social Security offices in Western Azerbaijan province should use the newest technologies and information and communication technologies and in this way increase the amount of official health.

Results indicated that applying IT is effective in increasing political factor health of Social Security offices in Western Azerbaijan province and this is consistent with findings of other researchers (Ahmad Baladehi et al, 2014) and it is inconsistent with findings of Farhadi and Mottaghian (2014). Therefore managers and authorities in Social Security offices in Western

Azerbaijan province should use the newest technologies and information and communication technologies and in this way increase the amount of political health of health administration.

Results indicated that applying IT is effective in increasing economic factor health of Social Security offices in Western Azerbaijan province and this is consistent with findings of other researchers (Ahmad Baladehi et al., 2014) and it is inconsistent with findings of Farhadi and Mottaghian (2014). Therefore managers and authorities in Social Security offices in Western Azerbaijan province should use the newest technologies and information and communication technologies and in this way increase the amount of economic health of health administration.

Results indicated that applying IT is effective in increasing social factor health of Social Security offices in Western Azerbaijan province and this is consistent with findings of other researchers (Ahmad Baladehi et al, 2014) and it is inconsistent with findings of Farhadi and Mottaghian (2014). So, managers and authorities in Social Security offices in Western Azerbaijan province should use the newest technologies and information and communication technologies and in this way increase the amount of social health of health administration.

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## INVESTIGATING THE ROLE PLAYED BY BRAND LOVE AND JEALOUSY IN SHAPING CONSUMER ENGAGEMENT (A CASE STUDY OF NIKE BRAND)

<sup>a</sup>KAMAL TAREMI, <sup>b</sup>BEHNAM ESMAEILI FAR

<sup>a</sup>ISLAMIC AZAD UNIVERSITY, Central Tehran Branch

<sup>b</sup>Faculty of Management–Department of Commerce

Email: <sup>a</sup>Kamal.Taremi.pe@gmail.com,

<sup>b</sup>Behnam.essmaeilifar.3@gmail.com

**Abstract.** The purpose of the present research is to investigate factors effective on customers' active engagement. Therefore, the present study investigates the effect of customer engagement on purchase intention as well as how the mediating role of customer interaction, self-esteem and self-expressiveness is effective on customers' purchase intention. This research, from data collection viewpoint is descriptive and survey, including library study and 30 questionnaire that was distributed among the study population customers of Nike brand in Tehran, with a sample size of 400. Results obtained by using the Kolmogorov-Smirnov, Pearson correlation coefficient and structural equation modeling reflect: there is a positive and significant relationship between self-esteem and brand love; brand self-expressive and brand jealousy.

**Keywords:** Brand Love, Brand Jealousy, Self-Esteem, Brand Self-Expressiveness, Active Engagement, Customers' Purchase Intention

### 1 Introduction

In today's world, brand names have effective role as one of the intellectual properties in developing and earning more money in business units. The issues associated with brand names including brand-consumer relationship which deals with important concepts such as brand commitment, trust and loyalty and can bring many positive outcomes for companies and managers are highly regarded in marketing research. One of the dimensions of consumer-brand relationship is emotional aspect of this relation which is related to issues higher than mere loyalty or rather than being a supporter of certain brand name. This stage includes concepts such as brand attachment and brand emotional relationship and also feelings such as brand love and brand jealousy which are the main subjects in the present study. In recent years, the roles of customers and companies have been increasingly combined. Examples of this combination can be seen in customer participation activities in production or development of products (Jaakola & Alexander, 2014). The concept of customer engagement as one of these combined roles has been regarded in recent years by researchers and those who are active in industry (Van Doom et al., 2010). Customer engagement has become one of the recent activities of managers and often is applied by companies and organizations through websites and other social networks.

Brand love cannot merely predict the customer engagement; hence, it caused brand jealousy variable was regarded as a complement to brand love in order to make better prediction of customer engagement. Customer engagement is accompanied with many advantages and it is considered as a driving force to maintain a long-term relationship with customers (Sarkar & Sreejesh, 2014). Customer engagement is regarded as one of the strategic necessities to create a sustainable competitive advantage for companies and it can predict the future of business (Brodie et al., 2013); therefore, marketers pays certain attention to customer engagement.

Since, less research has been performed on customer engagement in Iran, the researcher made an attempt to conduct a research in this field and provide the way for future studies regarding customer engagement.

### 2 Theoretical framework of the research

Brand names are an integral part of consumers' lives and are present in all aspects. Recent research has been focused on understanding and explaining certain types of relations established between consumers and brand names. For example, concepts and measures such as brand sensitivity, brand

relationship, brand commitment, brand trust and brand loyalty are defined among the concepts related to consumer-brand relationships and consumers have been divided into groups based on the depth of such relations (Albert, et al., 2008). However, brand fascination is a new concept in the field of marketing science which has recently attracted the attention of many researchers and academics. Brand fascination has been uniquely investigated by researchers as one aspect or dimension of broader concepts such as relational value and brand emotional attachment. The results have shown that Brand fascination affects critical marketing variables.

Brand names make consumers' life meaningful and have an important role in shaping their behavior (Albert, et al., 2012). This belief that inanimate objects such as brand names can be mixed with human characteristics is considered important in terms of marketing and consumer psychology (Sung & Kim, 2012). In the area of interpersonal relationships, people are often interested in individuals with whom they share common features. The same belief is also true about consumer-brand relationships. This subject rooted in social psychology suggests that consumer experiences of brands create some brand images in his mind through a series of exchanges. Keller claims that brand images are acted similar to information nodes in individuals' memory and remind meanings of brand names to consumers (Hwang & Kandampully, 2012).

Recently, Riemann and Aaron claimed that these theories about human relationships can be also relevant to close relationship between consumers and brand names, because sometimes people have a similar relationship with favorite objects as they do with humans. Often, these objects are certain brands which consumers are in relation with and use them to build their identity. Like the sense of loving others, brand names can create warm feelings among consumers. Therefore, consumers experience a pleasant feeling of being important and finally, a close relationship is made between consumers and brand names. Brands can give a favorite image of themselves to consumers because self-definition by possessions allows individuals to introduce themselves more different than what they actually are.

#### 2.1 Review of the Related Literature

1. Sarkar & Sreejesh (2014) conducted a research titled "Examination of the Roles Played by Brand Love and Jealousy in Shaping Customer Engagement" among 170 persons who had automobile in metropolitan cities in India. The results of this research confirmed the effect of self-esteem on brand jealousy; self-expressiveness on brand love; brand love on brand jealousy; brand jealousy on purchase intention; and brand jealousy on customer active engagement. Brand jealousy played the role of mediating factor very well to show the effect of self-esteem and self-expressiveness on purchase intention.
2. Wallace, Buil and de Chematony (2014) conducted a research titled "Consumer Engagement with Self-Expressive Brands: Brand Love and WOM Outcomes" on 265 Facebook users who were following a brand name as their favorite brand during the past year. In this research, the effect of self-expressive brand (social self) on brand love; self-expressive brand (inner self) on brand love; self-expressive brand (inner self) on word-of-mouth advertising; self-expressive brand (social self) on brand acceptance; brand love on word-of-mouth advertising; and brand love on brand acceptance were confirmed. Also, the effect of self-expressive brand (social self) on word-of-mouth advertising and self-expressive brand (inner self) on brand acceptance which were expected to be approved were rejected.
3. Motaharnejad, et al., (2014) conducted a research titled "Investigating the Relation between Brand and Consumer (A Case Study of Home Appliances)" with the purpose of investigating the relation between brand and customer. Study population included all consumers of home appliances in Mashhad selected through simple random sampling. Proportional



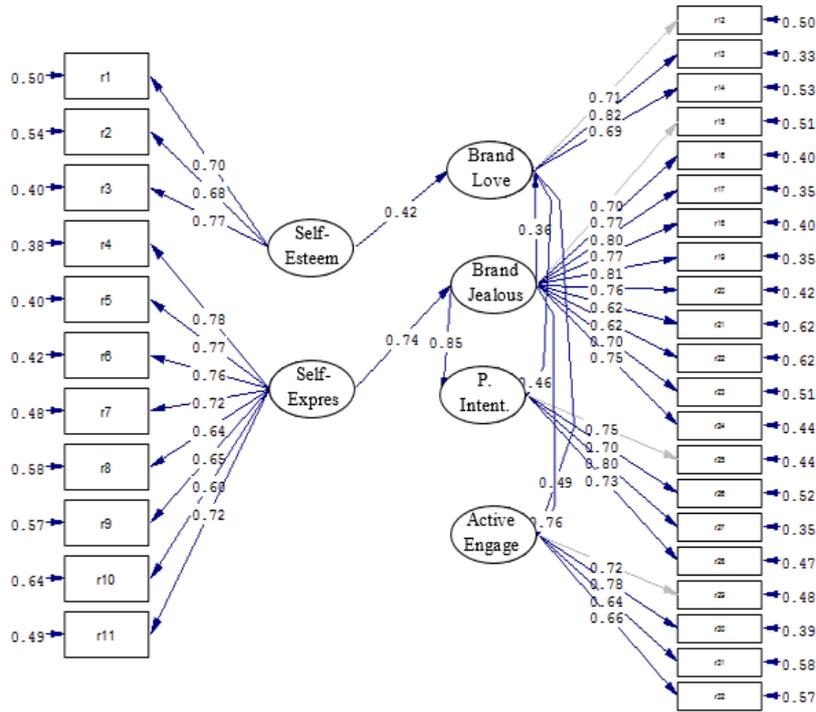
Beliefs	0.807	0.821	0.771	1		
Opinions	0.805	0.814	0.825	0.813	1	
Satisfaction	0.774	0.772	0.737	0.788	0.749	1

Significant level = 0.01

4.1 Path analysis (hypotheses testing)

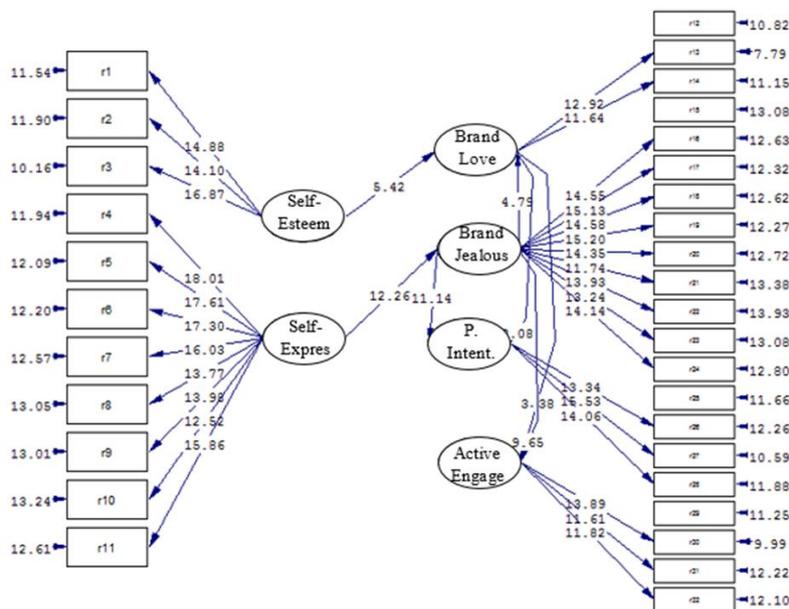
Lisrel software was used to test hypotheses and investigate the relation among factors of model. The results obtained from

model analysis in different cases of path and significant coefficients have been shown in figure 2 and 3.



Chi-Square=718.70, df=456, P-value=0.00000, RMSEA=0.048

Figure 2. Theoretical Model of the Study in cases of significant coefficients (t-statistic)



Chi-Square=718.70, df=456, P-value=0.00000, RMSEA=0.048

Figure 3. Theoretical Model of the Study in cases of standard path coefficients

Different types of tests are used in research to determine the fit of model (Houman, 2005). Generally, it suffices to use 3-5 indexes in order to validate a model (Tabatabaei, 2002). In the

present research, following values were calculated:  $\chi^2/d_f = 1.576$ , RMSEA = 0.04, NFI = 0.99, NNFI = 0.98, CFI = 0.99.

Therefore, the research data are sufficiently fit with factor structure and theoretical foundations and this represents that questions are consistent with theoretical structures.

#### 4.2 Research hypotheses testing

In hypothesis 1, the effect of self-esteem on brand love indicates a standard path coefficient with value of 0.42 and  $t = 5.42$ .  $t$ -value for this parameter (according to one percent error rule in rejecting null hypothesis for values out of the range from  $-2.58$  to  $2.58$ ) has been calculated more than  $2.58$ ; therefore, it can be concluded that the null hypothesis is rejected with 99% confidence and hypothesis 1 is accepted. In hypothesis 2, the effect of self-expressiveness on brand jealousy indicates a standard path coefficient with value of 0.74 and  $t = 12.26$ ;

therefore, this hypothesis is accepted. In hypothesis 3, the effect of brand jealousy on brand love indicates a standard path coefficient with value of 0.36 and  $t = 4.75$ ; therefore, this hypothesis is accepted. In hypothesis 4, the effect of brand jealousy on active engagement indicates a standard path coefficient with value of 0.76 and  $t = 9.65$ ; therefore, this hypothesis is accepted. In hypothesis 5, the effect of brand jealousy on customers' purchase intention indicates a standard path coefficient with value of 0.85 and  $t = 11.14$ ; therefore, this hypothesis is accepted. In hypothesis 6, the effect of brand love on active engagement indicates a standard path coefficient with value of 0.49 and  $t = 3.38$ ; therefore, this hypothesis is accepted. In hypothesis 7, the effect of brand love on customers' purchase intention indicates a standard path coefficient with value of 0.46 and  $t = 3.08$ ; therefore, this hypothesis is also accepted (table 3).

Table 3. Summary of research hypotheses

Hypothesis No.	Hypothesis		Standard path coefficient	t- statistic	result	Significant level (percent)
	from	to				
1	Self-esteem	Brand love	0.42	5.42	confirmed	99
2	Self-expressiveness	Brand jealousy	0.74	12.26	confirmed	99
3	Brand jealousy	Brand love	0.36	4.75	confirmed	99
4	Brand jealousy	Active engagement	0.76	9.65	confirmed	99
5		Purchase intention	0.85	11.14	confirmed	99
6	Brand love	Active engagement	0.49	3.38	confirmed	99
7	Brand love	Purchase intention	0.46	3.08	confirmed	99

#### 5 Suggestions

According to the results obtained from hypotheses testing, the following suggestions are recommended:

1. Suggestions based on hypothesis 1: In the early stages of a customer-brand relationship, when the customer is just starting to engage and purchase a brand, his interest can be very high. If the company has the ability to preserve customer's enthusiasm and strengthen it in the early stages, it can take advantage of benefits including brand commitment and positive word-of-mouth advertising for a long time. Fashion brands strategy should be in the way that brand personality and images are used to increase the emotional relationship between customers and brands.

2. Suggestions based on hypothesis 2: Companies encourage their customers through establishing emotional relationship with them to talk positively about their brand and develop more word-of-mouth advertising. If this goal achieved, it would increase the number of their customers and in this way company's profitability would be improved. Since, the brand personality could strengthen the customers' subjective perception; a deliberate effort can be made to create a powerful brand by a selection of distinct personality which is in accordance with desired sections on the market.

3. Suggestions based on hypothesis 3: Being well-known because of superior quality can bear the greatest impact on brand image; hence, branded apparel companies need to emphasize on maintaining and enhancing the quality of their products in order to improve their brand image over time and according to the sixth hypothesis to increase brand love. Manufacturing companies need to maintain and even improve the quality of products to create a positive word-of-mouth advertising and in this way encourage their customers to increase their purchase intention.

4. Suggestions based on hypothesis 4: Companies should prevent negative word-of-mouth advertising because such advertising has negative effect on purchase intention and

damages the company's brand. Manufacturing companies can create a positive word-of-mouth advertising by presenting an online platform to satisfy consumers and meet their needs simply. This will not only increase performance of product sales, but it will also decrease advertising costs. Brand managers must take advantage of means enhancing the credibility of the product quality to attract customers' attention and trust. Product quality reputation is achieved through getting certificates, offering insurance for goods, increasing popularity, etc.

5. Suggestions based on hypothesis 5: People who have personality traits interested in online purchase usually are optimistic. They have a positive impression on the product and an eagerness to own it and they make a decision to purchase it without hesitation. This indicates that consumers with vigorous features can be easily exited for purchase intention. Companies would be able to attract unplanned shopping behaviors through arousing customers' emotions and making them interested in brand.

6. Suggestions based on hypothesis 6: According to the research results, most customers of Nike products are between 18-38 years of age; as a result, advertising companies must make efforts to attract the attention of this age range. When a brand is well-known, it causes a better mental image and increases brand love in this group and in this way it is accompanied with word-of-mouth advertising for Nike brand. Most customers of Nike brand are athletes, young people and also educated ones. Although, they have common characteristics, distinct groups can be recognized among them and customized marketing activities must be done for each group as a specific target market. It requires extensive and detailed data collection from customers. In the way that in addition to overall demographic variables, some information about customers' interests, activities and lifestyle are achieved. Through categorizing homogeneous groups of customers, customized marketing activities can be focused on them. For example, related advertising messages and news are sent to individuals interested in public sports and walking and are always purchasing products related to such activities or young women including students are encouraged to

buy new models of bags and sport shoes through receiving related advertising and information or a certain page is considered for them on companies' website and social networks.

7. Suggestions based on hypothesis 7: Companies should produce and introduce products with high prestige to draw attention of people with high self-value and individuals who consider themselves as important ones and on the other hand try to build identity using well-known and luxury brands and put themselves in a high social status. Companies would be also able to encourage individuals and customers to purchase and use their products and services by improving value, service and quality of products. They should also consider different obstacles which prevent the purchase.

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## THE EFFECT OF ONLINE MARKETING ON EXPORTING HEALTH PRODUCTS (IRANIAN EXPORTING COMPANIES)

<sup>a</sup>MOHAMMAD HAGHIGHI, <sup>b</sup>ROJA KIMIAGARY, <sup>c</sup>NIMA BASTAMI

<sup>a</sup> University School of Management

<sup>b</sup> University of Tehran, Alborz international campus, Alborz, Iran

<sup>c</sup> University of Tehran, Kish international campus, Kish, Iran

Email: <sup>a</sup>mhaghighi@ut.ac.ir, <sup>b</sup>rkimiagary@yahoo.com  
<sup>c</sup>nimabastami@yahoo.com

**Abstract.** With regard to the increasing expansion of internet and communicative services, producers and sellers pay more attention to the internet and its use in selling products. In this article, first, the literature review toward the cosmetic products was discussed from different points of view. Then, a regression testing was used as a statistical method in this article. 384 individuals were used as the statistical population of this study. In this study, these people were selected from the health customers who at least bought something from the internet one more time. Also, in this article, SPSS software was used as an instrument for analyzing data in descriptive and inferential statistics. The results show that there is a direct and significant relationship between the online marketing variables and exporting the products.

**Keywords:** Exports, Online Marketing, Relationship, Sales

### 1 Introduction

Active companies in different countries exported their products to other countries at the time of domestic market saturation. Companies used exporting as a simple, substantial, and important method in order to enter to the international markets. Companies expanded their exports in order to use their chances and obtain income, financial sources, and other privileges. In most of the developing countries such as Iran, export is considered as a trade strategy (BaBae, 1392).

From economical point of view, internet plays an important role in the success of companies in domestic and foreign markets. In most trades, businessmen use internet as a cheap and expanded media for making a relationship with present and future customers and simplifying the most marketing affairs. Nowadays, internet will lead to the decrease in the communication expenses with removing the time and place limitations in the economic, social, and cultural relationships of people. One of the most important economic processes which are obtained in the international trade directly and indirectly is the export of goods and services. Internet expanded the export of goods and services considerably as a modern electronic trade tool (Tayyebi, 2012).

Studying the efficiency of online marketing on the exporting of health producers can be one of the most regarded issues in managing the marketing in organizations. The aim of this study is to study different dimensions of online marketing and the effect of online marketing on exporting the health products (Iranian exporting companies). (Samiee, 1998).

### 2 Concepts, Points of View, and Theoretical Background

Marketing is a process of planning, pricing, advertising, and distributing the goods and services in order to reach to individual and organizational aims. Marketing ideas of the 1970s was recognized after two decades of economic boom in the west and at the time of recession caused by the oil shock and economic issues. If organizations wanted to become successful in their carrier, they would have to use marketing (Katler and Armestrang, 2000).

Product marketing can be done in internal or foreign markets. Exporting marketing is included of all activities that a company does at the time exporting goods to the foreign countries. Although product marketing in internal markets is of high importance, exporting marketing is included of choosing the markets and suitable countries through marketing searches, necessary changes in goods, and suitable channels. In exporting marketing, a company may use an internal marketing strategy

and export its things with less product changes (Esmaili Pour, 2008).

Nowadays, internet is an important commercial factor. Internet is developed faster than other communicative technologies and universal markets are progressed more than other media technologies.

Online marketing is one kind of electronic trade which is included of information management, public relations, services, and sales department.

Online marketing is included of using internet and dependent digital technologies for the purpose of accessing to marketing aims and supporting the marketing concept in a modern way. (Clarke, 2002).

In practice, online marketing is a use of a company website and its mixture with direct developed technologies such as Google, banner ads, electronic post, and its relation with other sites for the purpose of giving services to new customers in order to develop the relationship with customers. Also, this point should be regarded that online marketing would be a good way if there were a complete correlation between an online marketing and traditional media such as press and television.

Generally speaking, online marketing means using internet and other digital technologies with traditional media for the purpose of accessing to marketing aims (Chaffy et al., 1999).

#### 2.1 Internet as a Communication Tool in Marketing

Marketing communication is included of different elements such as sales promotion, general relation, direct marketing, and advertisement. Advertisement is an important element of marketing specially, online marketing. Marketers use advertising for giving information about the trade name and its advantages in relation to other trade names, and finally choosing a trade name by the customer. Electronic advertising is one kind of electronic communication. Therefore, companies and industries spend a lot of money on electronic advertising due to an important role of advertising in giving information to the customers and encouraging the customers to buy things (Strauss and Phroust, 2001).

#### 2.2 Internet as a Market Tool in Marketing

Internet is an efficient mediator for conducting the market studies in the worldwide. Due to the fast changes in the international markets and the increasing competitions among them, companies should access to related and timely information in order to expand their exports. Therefore, companies use internet for gathering initial data about online marketing, bulletin boards, web users, advertisement assessment, identifying systems of customers, and post electronic marketing lists (Quelch and Klein, 1996). Also, they use internet for gathering secondary data about online newspapers and journals, industrial companies, trade companies, representatives, distributors, state contacts, and legal details of a host country (Hemil, 1997). Companies use internet for gathering information about marketing in order to expand international markets (Quelch and Klein, 1996).

#### 2.3 Internet as a Sales Tool in Marketing

Internet is a very good sales tool because companies can access to the potential customers from all around the world and sell their products. In addition, internet will lead to a dramatic growth of online population. It means that internet is very good tool for exporting companies to sell their products to people from all around the world. Companies can accept online orders through a safe online payment in online trades. Therefore, internet is considered as an important index in increasing the

existent exporting activities of the companies and expanding the number of customers from all around the world (Hemil, 1997).

#### 2.4 Internet as an Improving Tool in Marketing

Companies use online advertising to introduce their commercial name to the people from all around the world. Therefore, they should make people familiar with their commercial name and answer to the questions toward their commercial name. Also, this kind of advertising should make customers familiar with the values and advantages of a commercial name and encourage them to buy things. If people remember the commercial name of the advertised company, this kind of advertising would be successful. Also, the commercial names which are remembered by customers easier than other commercial names are of high competing advantages (Dubov, 1994).

Remembering the commercial names of the companies and advertisements is related to the customers' point of view toward an advertisement. Generally, studies show that consumers who have a positive attitude toward an advertisement can remember the advertisements and the commercial names of the companies better than the consumers who do not have a positive attitude toward an advertisement (Ston et al., 2000). Researchers such as Chen and Velz (1999), and Beraner and Komar (2000) show the differences between the customers' point of view toward an electronic trade and sites in a model.

The results show that the people's point of view toward a site has a direct relationship with the people's point of view toward advertisement, commercial name, and the purchasing aims of the consumers (Ivanef, 2012).

#### 2.5 Internet as an Expense Reduction Tool in Marketing

Since internet has a less expense, it will make companies to reach to the potential worldwide customers. While companies think that internet is one kind of expensive marketing, this affair will lead to the expense reduction of transactions such as sales expenses, preparation expenses, and expenses of producing and delivering the products which lead to the increase in profits (Dunt and Harpher, 2002). Many companies, industries, and storekeepers can make a complete coordination among worth wide activities through internet. Therefore, companies can perform their international trade activities with less expense through internet.

### 3 Literature Review

Mr. Hosseini and his coworkers studied the effect of electronic marketing on the exporting performance of industrial exporters from 2000 to 2005 and stated that advancements in information and communication technology would affect trade processes a lot and internet as the most important electronic marketing tool would make companies to reach to the international markets. Most companies do not have a lot of information about different ways of electronic marketing and their effects on exporting markets. The aim of the present study is to study the effect of electronic marketing ways on the exporting performance of producing and exporting companies. In this study, this question can be posed that there is a relationship between the usage of the internet in the marketing activities and the exporting performance? The statistical population of this study is the exporters of the industrial department from 2000 to 2005. One major hypothesis and six sub-hypotheses were defined for the purpose of answering to this question. Also, the relationship between the electronic marketing and exporting performance in the mentioned companies was tested with one conceptual MODEL. These hypotheses were studied with Pearson correlation test. Also, these hypotheses were analyzed more with the variance and regression analysis. Results show that there is a positive and significant relationship between the use of internet in marketing activities and exporting performance of studied companies. This relationship was confirmed with three dimensions of the electronic marketing. These three dimensions of the electronic marketing were the use of internet in the

activities relating to the customers, distributing channels, and marketing studies about the exporting performance. Marketing studies toward exporting performance are included of export growth and profit, the arrival of customers to the new markets, the improvement of market conditions, people's positive point of view toward products, services, and the commercial names of the companies (Marketing News, 2003).

Researchers such as Manian (2010), studied the role of the electronic trade in the expansion of the exporting goods and services in order to attain to the competitive benefits. They stated that the advancements in information and communication technology specially, internet increased a commercial competition among the organizations in attracting, keeping, and preserving the customers. Therefore, internet was considered as a main source of the competitive benefit for the organizations. One of the main strategies of the organizations was electronic trade to be survived in the competitive and dynamic markets. Generally, buying and selling things through electronic tools such as internet is called electronic trade. On the other hand, in the competitive world, we will observe the fundamental developments in the business and changes in the arrangement of economic authorities. Most of these developments are related to the familiarization of forerunner countries with a competitive benefit. In this study, an electronic trade and its importance in developing the non-oil exports such as exporting the goods and services are examined. In this article, first, the studies toward the electronic trade and the exports of goods and services were discussed. Then, a final model toward an electronic trade was suggested for the purpose of expanding goods and services. Finally, the findings of the study and its applied recommendations were given (Mohammadi, 2014).

Hashemi (2010) studied the effect of electronic trade on the amount of petroleum, gas, and petrochemical. They stated that the effect of an electronic trade on the amount of petroleum, gas, and petrochemical was studied and the results and the necessary suggestions were given. In this study, the methodology was explained. In this study, a field method which was supported by the library studies was used. The statistical samples of this study are the exporting companies of petroleum, gas, and petrochemical products. After studying the literature review and analyzing the indexes of the electronic trade, 24 major indexes were identified in the frame of three variables which were the improvement in the exporting process, income increase, and the decrease in the exporting expenses. Data were collected through a questionnaire. Also, quantitative and qualitative techniques were used in this study for analyzing the data. The results of this study showed that an electronic trade had a positive and significant effect on the amount of exporting and the three variables. With regard to the results of the study, it was recommended to the active statesmen and managers in the domain export to pay more attention to an electronic trade at the time of codifying the exporting policies.

Babae (2013) studied the effect of an electronic marketing like an internet on the marketing performance of rug exporters of Tehran. He stated that an electronic marketing is one of the new tools and methods of marketing. Therefore, information and communication technology and internet developed the trade in all around the world. Although internet is the most effective tool in the marketing and makes companies to reach to the world markets, most of the companies do not know to use electronic marketing or not. The purpose of this study is to examine the effect of online marketing on the marketing performance of rug exporters in Tehran. Therefore, the data of this study was gathered from the Iranian rug exporters which their office was in Tehran most of the time and used internet for exporting their rugs. The statistical community of the present study was 642 rug exporters. After a lot of studies, it was identified that only 81 exporters used internet for exporting their rugs. Therefore, in practice, the statistical community of this study was 81 individuals. In this study, 53 companies were selected with a simple sampling. In this study, one major hypothesis and 11 sub-hypotheses were formed. These hypotheses were confirmed or rejected with a regression, multivariable variance analysis, and

Fredman test. In this study, all of these tests were analyzed. The results of this study showed that internet was effective on exporting the rugs. Also, the effect of the three dimensions of online marketing such as the usage of internet in activities relating to the customers, distribution channels, and marketing studies was confirmed with the online marketing dimensions. Finally, the most important factors among online marketing (independent variable) and marketing performance (dependent variable) was identified with Fredman test.

Some researchers such as Kolah Kaj and Azizi (2013) studied the effect of online marketing on the exports of Khuzestan companies. They stated that online marketing was considered as a new industrial revolution in the 21 century and developed with the market universalizing. Nowadays, internet is an important commercial factor and is developed faster than other communicative technology. Also, universalized markets were developed more through the internet rather than other media technologies. Therefore, the effect of online marketing on the exports of the companies is regarded as a considerable issue in the marketing management of corporations. In this study, different dimensions of the internet usage in the marketing (Communications, market studies, sales, image improvement, and expense reduction) were examined on the Khuzestan exporting companies who export their products to other countries and used internet in their business. In this study, a questionnaire was used as a tool for testing the five hypotheses. This questionnaire was distributed among 90 exporting companies in Khuzestan. Kay Eskouer tests and Espearman or Pearson tests were used as a statistical method for analyzing the data. In this article, data were analyzed with the use of SPSS software. The results showed that there is a significant relationship among communications, market studies, sales, image improvement, and expense reduction. Phazyani et al., (2014) studied the role of internet in removing the marketing barriers and problems of exporting companies. They stated that active companies in all around the world would sell some of their things through international marketing at the time of the saturation of internal markets. Exporting goods is a way that companies can attain to the foreign markets. Since there are a lot of problems in this domain, the role of internet in removing the exporting problems was studied. Internet has an effective role on the success of exporting marketing. In this study, Researchers studied the barriers of using information technology by production and exporting companies and the ninth roles of internet in removing the marketing barriers. The researchers reached to a conclusion after studying the benefits of internet, gathering data, analyzing data, and identifying the problems of using an internet.

Manian (2010), who studied the effect of electronic banking on the marketing in Saderat bank stated that marketing was important in the business strategy and formed from the basic concepts. The purpose of marketers is to satisfy customers' needs. Customers' satisfaction will influence on their purchases. Therefore, this affair will influence on the profit of companies. In this study, the effect of electronic banking was studied on the marketing of Saderat bank. Finally, some solutions were given

for developing an electronic banking and the performance improvement of bank marketing. The results of this study show that bank can attain to its aims sooner. The present study was a descriptive study which was done in a survey way. Since the statistical population of the present study were from the clerks of Saderat bank in district 13 and the number of its clerks were 248 individuals, the statistical population of the present study was not a lot. Therefore, Korjesi and Morgan table was used for identifying the sample size of the study.

The samples of this study were 150 individuals which were selected randomly from the statistical population of the study. Some questionnaires were given to the samples of the study to fill the questionnaires. Also, the hypotheses of the present study were analyzed with the multiple regression method. Finally, the researchers reach to this conclusion that electronic banking variables such as automated teller machine, point of sale, telephone banking, mobile banking, internet banking, and factors such as advertisements, human relations, service qualities, and rivals have a positive effect on the marketing and confirm the hypotheses of the study.

Ivanef (2012) who studied the effect of internet on the unified marketing communications stated that the main purpose of this article was to merge systemic activities with the internet in a way that there would be a suitable balance. In recent years, changes has an important effect on the economic and social life of people. Internet will make these changes and provide many chances for the consumers to interact with companies and buy products from them. We should not disregard this point that there are a lot of information sources for consumers.

## 4 Research Hypotheses

### 4.1 Main Hypotheses

Online marketing has an effect on the export of health products.

#### Sub-hypotheses

Internet has an effect on the marketing and exports of the health products as a communication tool.

Internet has an effect on the marketing and the exports of the health products as a tool of the study.

Internet has an effect on the marketing and the exports of the health products as a sales tool.

Internet has an effect on the marketing and the exports of the health products as an image improvement tool.

Internet has an effect on the marketing and exports of health products as an expense reduction tool.

### 4.2 Conceptual Model of the Study

Researchers need scientific and theoretical framework for conducting scientific and unified studies which is called a conceptual model.

Since the suggested model is included of all variables of the study, it is used in this study and was shown in Figure 1.

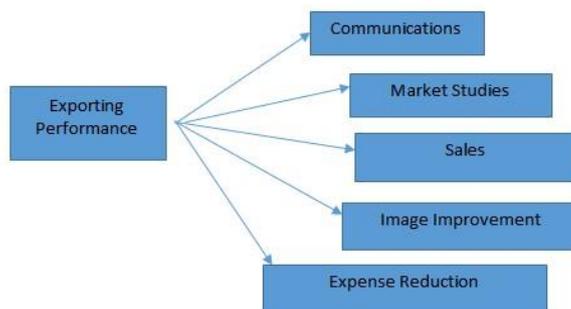


Figure 1. Conceptual Model of a Study

## 5. Methodology

In general, the methods of the study in behavioral sciences are categorized based on two criteria of research aim and the way of gathering data (Sarmad and his coworkers, 2008). The present study is correlation based on the aim of the study and the way of gathering data.

The statistical population of this study is included of the health production companies' clerks in Iran. The number of these people is 10000. The sampling size of this study which was calculated with Cochran formula is 384 individuals. These people were selected randomly.

### 5.1. Questionnaire Validity and Reliability

The reliability and the validity identify the correctness of measuring tools (Sakaran, 2002). The questionnaire of this study was extracted from Lou and Julian research (2007). In this study, Cronbach's alpha coefficient was used for measuring the reliability of the questionnaire. If Cronbach's alpha coefficient were more than 0.7, a questionnaire would have reliability. The validity of this questionnaire was confirmed by online marketing professors and elites.

Table 1. Cronbach's Alpha Coefficient (N= 30)

Number	Variables	Cronbach's Alpha Coefficient
1	Communications	0.71
2	Market Research	0.71
3	Sales	0.82
4	Image Improvement	0.82
5	Expense Reduction	0.79
6	The Total of Variables	0.92

## 6. Data Analysis

In this study, first, descriptive statistics (Some of the research results were stated in the following part.) was used for the purpose of studying the properties of the statistical population. Then, the hypotheses of the study were tested with SPSS software.

### 6.1. Descriptive Statistics

Descriptive statistics of companies' clerks were shown in Table 2.

Table 2. Descriptive Statistics

Sex	Number of People	Percent of People	Educational Level	Number of People	Percent of People	Age	Number of People	Percent of People
<b>Male</b>	213	55.47	<b>Diploma and Lower</b>	41	10.67	<b>20 to 30</b>	94	44.28
<b>Female</b>	171	44.53	<b>Associate Degree</b>	72	18.75	<b>30 to 40</b>	177	23.43
<b>Total</b>	384	100						
<b>Experiences</b>			<b>Bachelor of Art</b>	197	51.30	<b>40 to 50</b>		81 18.28
<b>Below than Five Years Old</b>	72	41.14	<b>Master of Art and Higher</b>	74	19.27	<b>50 and More</b>		32 16.00
<b>Between 5 to 0 Years old</b>	44	25.14						
<b>Between 10 to 20</b>	27	15.43						
<b>20 and More</b>	32	18.28						
<b>Total</b>	384	100	<b>Total</b>	384	100	<b>Total</b>	384	100

### 6.2. The Study of Data Normalization with the Use of Kolmogorov-Smirnov test

First, it should be identified that the gathered data are of normal distribution or not. If the distribution of the gathered data were normal, the hypotheses of the study could be tested with parametric t tests, and if the distribution of gathered data were

not normal, the hypotheses of the study could be tested with nonparametric tests. In this part, the results of the Kolmogorov-Smirnov test was studied for all of the dependent and independent variables of this study. Therefore, based on the obtained results, appropriate tests were selected for approving or rejecting the research assumptions.

Table 3. The Test Results of Variable Normalization

Number	Factors	Significance Level	The Amount of Error	Hypothesis Approval	Results
1	Communication	0.657	0.05	H0	Normal
2	Market Research	0.749	0.05	H0	Normal
3	Sales	0.847	0.05	H0	Normal
4	Image Improvement	0.538	0.05	H0	Normal
5	Expense Reduction	0.674	0.05	H0	Normal
6	Export Performance	0.632	0.05	H0	Normal

With regard to the results of the table3, these variables have a normal distribution because their significance levels are more than their error amounts (0.05).

### 6.3. Hypothesis Analysis

Table 4. The Results of Regression Test

Number	Variables	R2	ANOVA (Sig.)	Hypothesis Approval or Rejection
1	Communication	0.712	0.000	Approved
2	Market Research	0.726	0.000	Approved
3	Sales	0.743	0.000	Approved
4	Image Improvement	0.623	0.000	Approved
5	Expense Reduction	0.684	0.000	Approved

Research hypotheses show that online marketing has an effect on the exporting of health products. The amount of ANOVA in the table 4 is less than 0.05. This amount of ANOVA shows that there is a liner relationship between online marketing variables and production exports. The results of regression test in Table 4 show that sales and market research have the most effect on the product export, and image production has the least effect on the exports of products.

### 7. Conclusion

The main purpose of this study was to study the effect of online marketing on the export performance. With regard to the significance level between the use of internet as a communication tool in marketing and export performance, the obtained results by a regression test show that there is a liner relationship between communications in marketing and export performance of health products. Amount of R2 is equal to 0.712 and shows that %71.2 of variations in product exports are related to the marketing.

The results of this study show that the managers of the health product exporting companies believe that using internet as a communication tool is effective and can improve the export performance as a communication tool in marketing. Findings of this hypothesis is not in accordance with the research results of Lou and Julian (2007). In other words, communication was rejected in the study of Lou and Julian.

With regard to the fact that there is a significant relationship between the use of internet as a research tool in marketing and export performance, the obtained results with a regression test show that there is a linear relationship between a market research in marketing and export performance of health products. The amount of R2 is 0.726 and shows that %72.6 of product export variations is related to a market research. Since a market research will influence an export performance, managers of these companies should make an opportunity that the companies become aware of systems relating to information technology and use them easily. Although this hypothesis was approved in exporting companies of Iran, Lou and Julian (2007) study had different results. The results of Lou and Julian study rejected this hypothesis.

With regard to the fact that there is a significant relationship between the use of internet as a sales tool in marketing and export performance, the obtained results with a regression test show that there is a linear relationship between sales in marketing and export performance of health products. The amount of R2 is 0.743 and shows that %74.3 of product export variations is related to sales in marketing.

Therefore, it is suggested to the managers of health product exporting companies to pay more attention to the sales through internet because selling through internet can influence the export performance. (Hosseini et al., 2005)

The findings of this study are not in accordance with the findings of Lou and Julian, (2007) research. In other words, selling through internet was rejected in Lou and Julian's research.

With regard to the fact that there is a significant relationship between the use of internet as an image improvement tool in marketing and export performance, the obtained results with a regression test show that there is a linear relationship between image improvement in marketing and export performance of health products. The amount of R2 is 0.623 and shows that %62.3 of product export variations is related to the image improvement in marketing.

Therefore, it is suggested to the managers of health product exporting companies to make an opportunity for companies to become aware of systems relating to information technology and use these systems easily. Findings relating to this hypothesis is not in accordance with the results of Lou and Julian, (2007) study. In other words, image improvement was rejected in Lou and Julian's research. With regard to the fact that there is a significant relationship between the use of internet as an expense reduction tool in marketing and export performance, the obtained results with a regression test show that there is a linear relationship between expense reduction in marketing and export performance of health products. The amount of R2 is 0.684 and shows that %68.4 of product export variations is related to the expense reduction in marketing.

Therefore, the managers of these companies should make an opportunity for companies to become aware of systems relating to information technology and use these systems easily.

In a similar study, Lou and Julian (2007) made a tough relationship between an expense reduction and export performance in Austrian country.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## A SURVEY OF THE RELATIONSHIP OF QUALITY OF WORK LIFE AND PERFORMANCE AMONG EMPLOYEES OF NORTH CEMENT COMPANY

<sup>a</sup>ABDOLLAH KOULOUBANDI, <sup>b</sup>MOHAMMADREZA GOLJOOEE

<sup>a</sup>Department of Management, Faculty of Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran.

<sup>b</sup>Department of Management, Faculty of Management, Central Tehran Branch, Islamic Azad University, Tehran, Iran  
Email: <sup>a</sup> akouloubandi@gmail.com,

<sup>b</sup>Mohammad10715@yahoo.com

Abstract. Nowadays in workplace the reduction of stress is a necessity. The existing project aims to detect the factors of qualities of work life, has started to consider the effect quality of work life on performance of staff in North Cement Company. The existing project has considered the effect seven factors of quality of work life on staff function. In confirm of validity, questionnaire has been justified according to Walton and ACHIEVE's theoretical models. Alfa's factor of questionnaire about quality of work life is 0.835 and, function 0.870 and the whole of questionnaire 0.912. The information was collected by use of questionnaires of 195 people of company's staff. The results showed the positive effect of the quality of work life on the function of the staff of North Cement Company.

Keywords: North Cement Company, reduction of stress, quality of work life, function of the staff

### 1 Introduction

Expand progress of science and technology has caused broad changes in whole dimensions and basics of human life. Organs are not exceptional of this matter and in order to sustain in a such changing environment, inevitably forced to review of politics, strategies, aims, programs, etc. (Pardakhtchi, Mohammad Hassan and et al., 2009).

A number of open-minded people believe that a part of income slump and the reduction of product quality (service) in some countries been caused to lack of work life quality and some changes that have been created in staff's interests and betterment. Staff believe that they should have more authority and movement on their own works. To some extent that human resources have been considered in company, consequently they play a crucial and important role according to coming true of company's aims (Dolan and Schuler, 2013).

One of the important weak points of management is being indifference to quality of staff work life that has caused to reduce the efficiency of companies and to the reason of lack of knowledge understanding of managers of this issue, its own real fitness and measurement is lost.

When managers treat respectfully with their staff, and gives them this opportunity to express their ideas, the staff is more encouraged to work and this companionship is caused to increase of efficiency even more than expected results and this matter in itself caused to more engagement for better work and consequently a better quality on their work life (Dolan and Schuler, 2002).

According to a research done among a thousand successful company and organ in America cleared that these company's staff exceptionally to this reason that their companies had given them more authority from their rivals, has caused to increase of better function.

In these researches 3000 staff of these companies has been asked this question that (has the increase of efficiency and amount of your function had in life and in fact in quality of your work life or not?) more than 93 percent of the respondents has responded positively and have treated increase of their own work life quality resulting from quality of their function in company and company's success (Eghbali, 2013).

### 2 Conceptual foundation of research

#### 2.1 The definition of work life quality

Sangeeta Jain has expressed his ideas about the quality of work life: all expressions, and views concerning to concept of work life quality: industrial effect, human resource expanse, organic effect, work structure expression, job wealth social laws and specialized and technical systems, group work concept, the management of work staff, cooperation and parallel with each other, staff joining and their interference in company affairs, jobs structure. In another definition, work life quality according to Hunt definition and colleagues are: the general quality of people activities in work place (Alwani and et al., 2014). Edgarr and Budin (2003) they consider the quality of work life of complex of general work quality of working life situation in company and believe that the quality of work life shows the views and feelings of staff from their own work and includes a wide range of work environment that affects staff learning and health (Esmali Lahmali, 2013). The quality of work life includes a complex of real situation and work environment in a company like: the amount of wage and reward, welfare facilities, hygiene and security, cooperation in decision-making, educational periods, devolution (Mehdizadeh, 2010).

#### 2.2 Legalism in the organization

Order to provide freedom of expression and the rule of law without fear of retaliation of higher authorities and penetrating than the domination of man in the organization. The variable presented in the hope of fairness and formulation in job promotion, freedom of speech (the right to express opposition to the attitude of the head of the organization without any fear from him) reserved the right to respond to all issues, including the allocation of wages, bonuses and job security and the assurance of the absence of discrimination on gender, ethnicity and religion and beliefs. (Mehdizadeh, 2010)

#### 2.3 Continued growth opportunities

Improving the personal ability, providing opportunities for advancement and opportunities to apply acquired skills (Mehdizadeh, 2010).

#### 2.4 Social dependence of work life

How to harvesting or perception about the organization's social responsibility. Thus, the role of social utility and social damage effects and its activities are increasingly the main issues of the staff. Accordingly, that it makes sense that organizations do not feel their social responsibility leads to despise the value of work and the basis for the need for self-esteem and professional staff provide them (Mehdizadeh, 2010).

#### 2.5 Social integrity and cohesiveness

Social integration means the primacy of the interests of the organization in teams and social groups. Lack of prejudice of race and gender and create a sense of community in the organization and freedom of individuals to express ideas and feelings in the form of associations and to promote the participation of workers in the regulation of the intellectual and practical cases which helps to create organizational integrity (Mehdizadeh, 2010).

#### 2.6 Development of human capabilities

Availability of opportunities to develop human capabilities such as independence and self-regulation of the work, the bringing benefit from the different skills, access to appropriate information and planning work for the staff there. The purpose

of this factor is that the opportunity to acquire skills and training are created and at the same time coordinating personnel to the mission, goals, programs and strategies in order to meet the needs of individuals and organizations to take action (Mehdzadeh, 2010).

### 2.7 Safe and healthy working environment

Must work environment pollution effects that can adversely impact the physical and mental state employees leave the workplace to reduce. In other words health and safety contact, reasonable working hours and physical conditions of work, including physical and safe working conditions with minimal risk and age restrictions apply for employment (Mehdzadeh, 2010: 3).

### 2.8 The overall atmosphere of life

To establish a balance between work life and other parts of life that includes free time, staff and family life education is to be relevant. It also determines the job description and competency good effect on staff morale and job promotion will be routed (Mehdzadeh, 2010: 4).

### 2.9 Operation

Performance is to accomplish the tasks that the organization has been responsible for human resources (Bagheri, 2014). The goals have been achieved (Khaki, 2007).

### 2.10 Ability

Power to accomplish a task successful (Khaki, 2007).

### 2.11 Clarity

Admission clear understanding how, where and how they do it (Khaki, 2007: 54).

### 2.12 Help

Help support the organization that is the support that employees need to complete the effectiveness of the work (Khaki, 2007).

### 2.13 Incentive

Enthusiasm and desire to do homework (khaki, 2007)

### 2.14 Evaluation

The mechanism of judgment in relation to how the work (khaki, 2007)

### 2.15 Validity

Occasion, legality and legitimacy of the decision of the director (khaki, 2007)

### 2.16 Environment

Set external factors (khaki, 2007)

## 3 Background research

A study entitled "The effect on the quality of work life employee performance Rudaki Foundation for Culture and Art" by Mr. Ahmad Pasandideh Fallah Dana in 2014, master's degree in Public Administration at the Azad University of Tehran has been done. The researchers found that the components of employee performance affects the quality of working life.

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Another study entitled "The impact on the performance quality of working life of staff General Administration of Customs international airport of Imam Khomeini" in 2013 has been done by Azam Babaei the great expedition master's degree in Public Administration at the Azad University of Tehran. The researchers found that the components of employee performance affects the quality of working life.

Another study entitled "The impact quality of working life on the performance of staff General Administration of Customs international airport of Imam Khomeini" in 2013 has been done by Sorye Monasebi the great expedition master degree in Public Administration at the Azad University of Tehran. The researchers found that the components of employee performance affects the quality of working life.

Another study entitled "Effects on the Quality of Work Life Legal Department employee performance and claims of Bank Melli Iran" in 2013 has been done in master by Monica Singh Honjen. The researchers found that the components of employee performance affects the quality of working life and this means that by increasing or decreasing satisfaction with the quality of working life, the performance will be affected employees.

In another study to investigate to develop indicators of quality of working life to help define working in developed economies that has been done in Australia. The study was conducted by Gillian Geonsidin and Ron Callus in 2003. In this study, the pattern Walton and developed 15 indicators to check the status of Australia's quality of work life.

They responded to two basic questions based on the research findings, these two questions were: What is the most important issue affecting the quality of working life? Second, what changes are needed to improve the quality of work life? The results showed that overall more than 70% of employees have a positive attitude to the five indicators of fifteen QWL index. That have evaluated (Ahmadi, 2009). Koonemee and et al., (2010) study the relationship between the institutionalization of ethics, quality of working life and output of paid staff. The study questionnaire via e-mail was distributed among 514 human resource manager in Thailand. The results of this study showed a significant positive relationship between these three components. Results also tacitly implies on goodness of both ethics and quality of working life, employees have a positive impact on three major aspects that these three aspects are: job satisfaction, organizational commitment and team spirit (Eslami, 2012).

## 4 Theoretical framework

The theoretical framework suggests that research depends on which theory and research. In conjunction with the independent variable quality of working life, Walton model is used. Walton model includes seven factors (workplace health and safety, law, social dependence of work life, developing human capabilities, opportunities for continued growth, the overall atmosphere of life, social integration).

In conjunction with the dependent variable, employee performance, the ACHIEVE model (Hersey and Goldsmith) is used. ACHIEVE models consist factors of ability, obviously, help, motivation, evaluation, reliability and the environment. Despite the quality of working life, while boasting greedily staff to work all their efforts in order to achieve the organizational goals.

## 5 Hypotheses

The main hypothesis: the quality of working life is a positive and significant impact on employee performance.

Subsidiary hypothesis:

1) Safe and healthy working environment has a significant positive impact on employee performance.

- 2) Legalism in the organization positive and significant impact on employee performance.
- 3) Social dependence of work life is a positive and significant impact on employee performance.
- 4) Developing human capabilities and a significant positive impact on employee performance.
- 5) Continued growth opportunities and significant positive impact on employee performance.
- 6) Overall living space and has a significant positive impact on employee performance.
- 7) Integration and social cohesion is a positive and significant impact on employee performance.

On the basis of the target, but the research is applied and in terms of descriptive survey method (through the use of questionnaires) is considered. .

In this study, to determine the reliability of the questionnaire that used Cronbach's alpha for QWL 0.835, 0.870 and function of the questionnaire is 0.912. So we can say that questionnaires are of sufficient validity.

According to the questionnaire assessment tool based on theoretical models and consist Walton set. So it can be concluded that its validity is approved. However understandable the items to ensure content validity was used for the subjects.

**7 Analysis of the research**

The analysis was descriptive and inferential statistics were used. Table A shows the descriptive statistical factors.

**6 Research Methodology**

Table 1. Descriptive statistics

	AVERAGE	STANDARD DEVIATION
Quality of working life	62.85	10.58
Safe and healthy working environment.	9.16	2.8
Legalism in the organization	9.39	2.74
Social dependence of work life	9.45	2.94
Developing human capabilities	9.91	2.64
Continued growth opportunities	6.6	1.76
The overall atmosphere of life	8.81	2.88
Social integration	9.51	2.92
Operation	90.78	12.9

The correlation coefficient between quality of working life and employee performance is provided.

Table 2. Correlation coefficient

Factors	Employee Performance	
	The correlation coefficient	significant
Quality of working life	0.696	0
Safe and healthy working environment.	0.477	0
Legalism in the organization	0.393	0
Social dependence of work life	0.559	0
Developing human capabilities	0.277	0
Continued growth opportunities	0.229	0.001
The overall atmosphere of life	0.333	0
Social integration	0.377	0

As can be seen in Table 2, the quality of working life (r = 0.696), safe and healthy working environment (r = 0.477), Legalism in the organization (r = 0.393), social dependence of work life (r = 0.559), developing human capabilities (r = 0.277), continued growth opportunities (r = 0.229), overall living space (r = 0.333)

and social integration (r = 0.377) and there is a significant positive relationship.

Results of regression analysis, quality of work life and performance of employees in the table.

Table 3. Regression Analysis

Statistical indicators	correlation coefficient	multiple correlation squared	adjusted multiple correlation coefficient	estimated standard error
Social dependence of work life	0.559	0.312	0.308	0.413
Safe and healthy working environment.	0.629	0.396	0.390	0.388
Social integration	0.673	0.453	0.444	0.370
The overall atmosphere of life	0.696	0.484	0.473	0.360
Legalism in the organization	0.712	0.506	0.493	0.353

As seen in Table 3, the stepwise regression analysis in total over the five-step, five social dependence of work life, workplace safety and health, social integration, overall living space, Legalism in the organization staff performance have multiple correlation. Stepwise regression analysis based on the variables in order of importance, the first social dependence of work life

with the performance of multiple correlation coefficient was 0.559. In the second step with the addition of safe and healthy working environment variable multiple correlation coefficient was 0.629. The multiple correlation coefficient of 0.07 was added for safe and healthy working environment. In the third step with the addition of variable social integration of multiple

correlation coefficient was 0.673. Added multiple correlation coefficient was 0.044. In the fourth step, with added living space variable overall multiple correlation coefficient was 0.696. Added multiple correlation coefficient was 0.023. In the fifth step with the addition of variable Legalism of the multiple

correlation coefficient was 0.712. Added multiple correlation coefficient was 0.016.

Employee performance regression variance analysis table is as follows:

Table 4. Regression analysis of employee performance

Source changes	Sum of squares	Degrees of freedom	Mean Square	ratio F	meaningful
regression	14.913	1	14.913	87.526	0 <sup>1</sup>
Remaining	32.884	193	0.170		
Total	47.796	194			
regression	18.939	2	9.469	63.003	0 <sup>2</sup>
Remaining	28.858	192	0.150		
Total	47.796	194			
regression	21.644	3	7.215	52.691	0 <sup>3</sup>
Remaining	26.152	191	0.137		
Total	47.796	194			
regression	23.150	4	5.788	44.617	0 <sup>4</sup>
Remaining	24.646	190	0.130		
Total	47.796	194			
regression	24.197	5	4.839	38.758	0 <sup>5</sup>
Remaining	23.599	189	0.125		
Total	47.796	194			

<sup>1</sup> Social dependence of work life

<sup>2</sup> Social dependence of work life · Safe and healthy working environment

<sup>3</sup> Social dependence of work life · Safe and healthy working environment · Social integrity and cohesiveness

<sup>4</sup> Social dependence of work life · Safe and healthy working environment · Social integrity and cohesiveness · The overall atmosphere of life

<sup>5</sup> Social dependence of work life · Safe and healthy working environment · Social integrity and cohesiveness · The overall atmosphere of life · Legalism in the organization

As can be seen in Table 4, analysis of variance, credit stepwise regression analysis to predict the performance of employees. (Significance level zero and the ratio F = 38.758).

Table regression coefficients, standard and non-standard employee performance is as follows:

Table 5. standard and non-standard regression coefficient employee performance

Indicators of data	Custom beta coefficients	standard error	Standard factor beta	The amount of t	meaningful
1 constant	2.602	0.100		26.127	0
Social dependence of work life	0.282	0.030	0.559	9.356	0
2 fixed amount				20.304	0
Social dependence of work life	2.280	0.112	0.443	7.330	0
Safe and healthy working environment.	0.224	0.031			
	0.166	0.032	0.313	5.176	0
3 constant					
Social dependence of work life	1.994	0.125	0.404	15.946	0
	0.204	0.029		6.932	0
Safe and healthy working environment.	0.150	0.031	0.283	4.880	0
	0.125	0.028		4.445	0
Social integration			0.245		
4 fixed amount					
Social dependence of work life	1.819	0.132		13.771	0
	0.198	0.029	0.393	6.909	0
Safe and healthy working environment.	0.132	0.030	0.248	4.328	0
	0.115	0.027	0.227	4.210	0
Social integration					
The overall atmosphere of life	0.095	0.028	0.184	3.408	0.001
5 constant					
Social dependence of work life	1.698	0.136		12.469	0
	0.191	0.028	0.378	6.755	0
Safe and healthy working environment.	0.114	0.031	0.214	3.722	0
	0.102	0.027	0.200	3.728	0
Social integration					
The overall atmosphere of life	0.085	0.028	0.164	3.068	0.002
	0.087	0.030	0.161	2.896	0.004
Legalism in the organization					

As can be seen in Table 5, in the final step of a stepwise regression analysis of five social dependence of work life, workplace safety and health, social integration, the overall atmosphere in the organization to predict employee performance into the life and rule of law have been regression. To the social dependence of work life and standard beta coefficient 0.378,

0.214 a safe and healthy work environment, social integration 0.200, overall living space of 0.164, 0.161 legalism in the organization can have significant predictor of employee performance.

Verified prioritize research hypotheses based on Friedman test:

Table 6. Prioritize the secondary hypotheses based on Friedman test

Theories	Average rating	priorities
Safe and healthy working environment has a significant positive impact on employee performance	3.81	4
Legalism in the organization and significant positive impact on employee performance	3.97	3
Social dependence of work life is a positive and significant impact on employee performance	4.01	2
The overall atmosphere of life and significant positive impact on employee performance	3.43	5
Social integration and a significant positive impact on employee performance	4.10	1

## 8 Conclusion

The aim of this study was to determine the impact on quality of work life employee performance Cement north. As the results showed, in terms of quality of working life of employees with a positive and significant impact on employee performance.

According to the results the most points related to the ongoing growth opportunity and it would be an opportunity for organizations to be considered. Pointing to provide continued growth opportunities, improving the personal ability, opportunities for advancement and opportunities to use acquired

skills. Action greater incentive to earn more skills and better performance are created.

The study results show that the level of overall living space and safe and healthy working environment at the lowest levels are among the factors and the senior management attention to these factors, including the weakness of the organization. As safe a working environment as helmets and safety shoes for workers, or earplugs to have the lowest risk of hearing damage is prevented. As well as the working environment should be safe and healthy working environment that could adversely impact the physical effects of pollution. Among the factors consist models based on

correlation of social dependence of work life, workplace health and safety and legality of the highest correlation coefficient can be said that the most important factors in the performance of employees.

Among the factors consist models based on correlation coefficient continued growth opportunities, developing human capabilities correlation coefficient is the least that can be said is the least important factors in the performance of employees.

Among the factors consist greatest impact social dependence of work life, workplace safety and health, social integration possess. Therefore it is recommended to look and work as a strong point for improving employees' performance improving these efforts.

The impact of the factors consist factor is the organizational legality on their own.

## 9 Suggestions

Providing health resorts in places of pilgrimage - tourism for Northern Cement Company staff

The forced leave to those who do not use their vacation.

Use of the equipment is worn risk and should be avoided.

Equality in law enforcement for all employees.

Continuous monitoring, protection against pollution, clean air standards and the use of international standards such as ISO 14000.

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## CHECKING CAPITAL STRUCTURE IN ACCEPTED FIRMS IN IRAN'S SECURITIES EXCHANGE BASED ON DATA PANEL: CASE STUDY OF STEEL FIRMS

<sup>a\*</sup>MOZHGAN SAFARI SHARAFSHADEH, <sup>b</sup>FARID HABIBI TANHA, <sup>c</sup>MARYAM SHOAR

<sup>a</sup>*Department of Industrial Management, North Tehran Branch, Islamic Azad University, Tehran, Iran*

<sup>b</sup>*Department of Financial Sciences, University of Economic Sciences, Tehran, Iran.*

<sup>c</sup>*Department of Industrial Management, Science and research Branch, Islamic Azad University, Tehran, Iran.*

Email: <sup>a</sup>*smozhgan44@yahoo.com*, <sup>b</sup>*F.Habibi.tanha@gmail.com*, <sup>c</sup>*Maryia.shoar.indus@gmail.com*

**Abstract-** the main aim of this research is comparison of trade off theory and packing order theory in describing finance structure of accepted steel firms in Tehran's securities exchange by using data panel method. To this, using sampling, 22 active steel firms in Tehran's securities exchange during 2009- 2014 have selected as samples. To this work, relation between variables, by using econometrics software of sign data is evaluated and tested. The results showed that deficit variable in packing order model has a negative and meaningful effect on pure debit also deficit variable in trade off model has a positive and meaningful effect on pure debit. Due to different effectiveness of deficit variable on net debit signally and based on amount in both theories, packing order and trade off, none of both theories with complete decisiveness, cannot describe firms' structure.

**Keywords:** securities exchange, trade off theory, packing order theory, capital structure.

### 1 Introduction

Capital structure issue is a significant and controversial issues in firms' finance area. Offering different theories, researchers try to offer the best pattern and theory to determine optimum capital structure and minimize firm's capital cost to maximize market's value of firm's stock. There are many theories, each of them prescribes a version to support finance for the firms, some prescribe finance support by offering debit securities, some by equity securities, and some by both of available sources. But note that none of available theories and patterns solely cannot theorize firm's capital structure without considering firm's conditions and characters such as profitability, firm's size, current firm dominance level in the firm and so on (Ahmadinia, et al., 2012).

One of the basic financial managers' decisions in public stock firms is determining debit and stock composition that these decisions must be taken to maximize stockholders' wealthy. Traditional view in capital structure based on this theory that one can increase firm's value by using lever. But start of modern theories of capital structure can be primary article of Modigliani and Miller who assert that under special conditions (presence of complete competitive market, lack of tax on income, lack of presence of bankruptcy and agency costs, presence of informational symmetry among capital market actors), firm value doesn't depend on capital structure. Later in 1963, these two thinkers by adding debit tax exempts for firms using debit, know making financial lever as increase firm value. So, Miller in 1977, by adding tax on personal incomes to model, finds that tax interests are deleted by personal incomes. Yet, testimonies of empirical studies showed that real behavior of financial support of the firms doesn't fit with literature of capital structure. Therefore, later, publishing theories of Modigliani and Miller and 1963 and paradoxical behavior of firms, new theories such as trade off and prefer are offered. In trade off theory, it supposed that the firm determines a proper debit rate and moves toward it. In prefer theory, firms prefer internal financial supply rather than external financial supply and there is no proper and certain debit rate for firms. In capital market more sophisticated than Iran's capital market, many theories and hypotheses in field of capital structure and determining related factors are offered (Alinejad Saroklaei and Taghizadeh Khaneghah, 2012).

The steel is one significant and effective good in growth and development of the countries. This good after oil and gas is second volume good of global trade and many basic industries such as transportation, building, making machinery, mine and other industries related to producing and transferring energy, depend on steel. So improvement and development of steel industry is important in economic development of countries. So in this research plot, we tried to by doing trade off theory and packing order theory in description of financial structure of accepted steel firms in Tehran's securities exchange by using data panel method, evaluate weakness and strengths of this industry for capital structure (Etemadi and Montazeri, 2013).

### 2 Review on research literature

In checking structure of firms' capital, we try to theorize various sources composite used in financial supply of actions and required investments. Additionally, one can say that the aim of determining capital structure is specifying composite of financial sources of any firm, to maximize its stockholders' wealthy, because cost of firm's capital is subject to its capital structure. Selecting proper capital structure decreases cost of firm's capital and increases market value (Jolahzadeh, 2010).

This matter that how firms select and adjust own strategic financial sources, has attracted many financial economists and yet result in many discussions. Of course, sometime one believes that nature of such problems so complicated that no one can address editing reasonable theory. Since half century before that Weston offers possibility of editing such theories, Modigliani and Miller deliver own theory. Studies show that since publishing their article, various theories and patterns about structure of firms' capital and way of selecting them has been edited.

Researches show that no one of current theories and patterns solely cannot theorize effective factors in determining structure of firms' capital and provide certain answer to below questions:

Why in various conditions, some firms to supply finance of own actions, releasing stock select option, some select utilizing internal and some select borrowing way. Therefore, it seems that the greatest available problem is lack of comprehensive theory that can describes and predicts treatment of financial supply and structure of firms' capital completely.

According to studies, tax, costs of financial distress (bankruptcy), transaction costs, adverse selection and agency conflicts are main factors that firms introduce to financial supply through making debit and forming structure of their capital structure. To determine above factors, already various theories and patterns are offered that most important of them are trade off theory and packing order theory.

In various countries, due to composite of market and various economic conditions, trade off theory and packing order in various periods are checked and compared, and place of such research in Iranian firms id blank. This research wants to compare these two models while check power of description of these two theories about Iranian firms by implementing these two theories on data panel of accepted steel firms in Tehran's securities exchange (Khalifeh Soltani et al., 2014).

#### 2.1 History of research

Ahmadinia, et al., (2012) in own study under title of determining difference of strategic and non-strategic industries of Tehran's securities exchange by highlighting on structure of capital and cash value added by data panel approach, address financial structure category and its effect on firm value due to kind of firm. The results represent that both groups of strategic and non-

strategic industries and also all industries, there is meaningful relation between financial structure and cash value added. Also, adjusted coefficients and independent variables coefficients in regression models shows that relations between financial structure and cash value added in strategic and non-strategic industries are different.

Alinejad Saroklaei and Taghizadeh Khaneghah, (2012) in his research by title of "determining pattern of structure of accepted firms in Tehran's securities exchange" checked capital structure of 158 production firms during 1998 to 2002. The results of this research show that there is a direct relation among profitability, visible constant asset and size of firm. Findings of this research confirm trade off theory by rejecting packing order theory.

Shojaei et al., (2015) in a research by title of "over analysis of determining factors of capital structure in firm level" by checking 127 studies during 1900 to 2013 conclude that size, asset structure, growth opportunities, profitability, cash flow and oscillation play major role in deciding about capital structure. Checked factors in this research in the countries with various development degrees, have different impact on capital structure and effect of these factors has been different during various times.

Khalifeh Soltani et al., (2014), in a research to compare power of description of two models, trade off and packing order in treatment of Japanese firms conclude that based on outputs, packing order theory is better than trade off theory. This researcher showed that if quarter regression model is used, packing order model has better prediction power.

### 3 Statistical population

Due to great number of steel firms and their wideness throughout state and lack of access to audited financial forms, all of them are statistical population firms to test hypotheses, available firms in Tehran's securities exchange. Sampling done by systematic delete method, so that firms have been selected among statistical population according to below conditions:

- 1) Are production firms. 2) Since 2009 to 2014 are in exchange.
- 3) During 2009 to 2014, offer required information to doing this research completely. 4) Their financial year end is February. 5) During research, has no change in financial period. 6) Firm has no operation pause in 2009 to 2014.

Finally, considering above conditions, 22 firms are selected as sample studied in this research.

### 4 Research hypotheses

Among two models, packing order and trade off, packing order model has predicting power more about capital structure of accepted steel firms in securities exchange.

Packing order (preferred theory) about capital structure of accepted steel firms in securities exchange is predictor.

Trade off model about capital structure of accepted steel firms in securities exchange is predictor.

### 5 Research pattern and variables

Variables in packing order model:

1. Cash flow after payable interest and tax ( $C_{it}$ )
2. Gain ( $DIV_{it}$ )
3. Investment ( $X_{it}$ )
4. Net increasing capital in flow ( $\Delta W_{it}$ )
5. Net debit ( $\Delta D_{it}$ )
6. Deficit: deficit in investment and internal financial sources stated by below relation:

$$DFF_{it} = DIV_{it} + X_{it} + \Delta W_{it} - C_{it} \quad (1)$$

In this condition, packing order model is:

$$\Delta D_{it} = a + b_{FO} DFF_{it} + \varepsilon_{it} \quad (2)$$

Variables in trade off model:

Addition to effective variables in packing order model,  $DIF_{it}$  is defined as:

$$D_{it}^a = \text{optimum borrowing level}$$

And in this condition, trade off model is calculated as:

$$\Delta D_{it} = a + b_{TO} DIF_{it} + e_{it} \quad (3)$$

## 6 Findings of research

### 6.1 Assessing first pattern of research

#### 6.1.1 Non-covariance

In statistics, as standard variances of a variable in considered certain number of below observations, always are not constant. Non-covariance issue occur as various periods of error lack equal variances, so that diagonal elements of covariance matrices are not equal. In fact, non-covariance occurs as various observations have various error variance (Gajarati, 2006). Probable presence of non-variance one important concern and problem in using regression analysis includes variance analysis, because presence of non-covariance can delete validity of meaningful statistic tests.

There are two option related to non-covariance and first solution that is very usual is using efficient evaluator OLS. But at same time, they use constant standard errors that make presence of non-covariance possible. Better and second solution occur when we know pattern, the pattern which we usually don't know using weight limit square to calculate effective and efficient evaluators about non-covariance pattern, if we have correct knowledge.

#### 6.1.2 Self-correlation

Serial (sequence) correlation of disorder in time periods is defined under title of self-revolve. With supposing that all other suppositions of OLS are true, under conditions of self-correlation, OLS evaluator also always lacks diagonal. In result, OLS is not BLUE no longer, and usual standard errors OLS and other test statistics have no validity and credit.

#### 6.1.2.1 Solving non-covariance and self-correlation problems

There are two methods to considering non-covariance and self-correlation problems that are:

- a) Constant standard errors
- b) GLS (generalized minimum squares)

#### 6.1.3 F Limer test and research first pattern Hausman test

To assess and hypotheses test, first F Limer test done to specify integrated data or sign data and also Hausman test to determine constant effects or accidental effects. F Limer test is used to determine using composite data model or sign model. If (prob 0.05); (sign data method) and otherwise, integrated data model is confirmed. Hausman test is done to determine using constant effect model against accidental effect model. Hausman test is formed based on exist or non-exist of relation between assessed regression error and independent model variables. If there is such relation, accidental effect model is used and if there is no relation, constant effect model is used.  $H_0$  hypothesis shows lack of relation of independent variables and assessment error and  $H_1$

hypothesis shows presence of relation (table 1). H0: random effect, H1: fixed effect

Table 1: research first pattern variance non-equality test (packing order model)

model	F Limer test			Hausman test		
	Statistics	Possibility (0.005)	Result of test	Statistics	Possibility (0.005)	Result of test
	2.01	0.0000	sign	23.52	0.0004	Constant effect

Due to above table, since F Limer statistics is less than 5 percent, data is used in form of panel. Here, to determine proper model, Hausman test is used because achieved possibility is less than 5 percent. Zero hypothesis is rejected and constant effects model is used (table 2).

**6.1.4 Assessment of research first pattern**

$$\Delta D_{it} = a + b_{it}DFF_{it} + a_{it} \tag{4}$$

Table 2: results of assessment of research first pattern (packing order model)

variables	Assessment coefficients	T statistics	Standard deviation	Meaningfulness level
Constant coefficient (y-intercept)	-4.29	-7.07	6.36	0.0000***
Deficient (DIFF)	-0.26	-2.28	0.78	0.0231**
Determination coefficient	Adjusted determination coefficient	Durbin-Watson statistic	F statistic possibility	F statistics
R-squared	Adjusted squared	Durbin-Watson statistic	Prob (F-statistic)	F-statistic
0.72	0.68	2.06	0.000000	7.29

\* In 10 percent level, \*\* In 5 percent level, \*\*\* In 1 percent level

Due to F statistic (7.29) and achieved error level (0.000000) is less than 0.05 error level, in result, in 95% assurance level, one can say that in research model, it is fits well and has high meaningfulness.

R<sup>2</sup> = 0.65 represents adjusted determination coefficient represents description of independent variables. It means that dependent variable is justified by independent and control variables, while Durbin-Watson statistic amount is 2.06.

(1.5 < DW < 2.5). due to Durbin-Watson statistic, one can say that there is no serial correlation model among residual statements and acclaim lack of existence of self-correlation.

Due to result of first pattern assessment, it is clear that deficient variable in packing order has negative and meaningful effect on net debit, so that one unit increase in deficient makes 0.26 decrease in net debit (table 3).

**6.2 assessing second research pattern**

**6.2.1 F Limer test and research second pattern Hausman test**

Table 3: variance non-equality of research second pattern test (trade off model)

Model	F Limer test			Hausman test		
	statistic	Possibility (0.05)	Result of test	statistic	Possibility (0.05)	Result of test
1	2.27	0.0000	sign	19.76	0.0008	Constant effects

Due to above table, since F Limer statistic possibility is less than 5 percent, data is used in form of panel. Here, to determine proper model, Hausman test is used because achieved possibility

is less than 5 percent. Zero hypothesis is rejected and constant effects model is used (table 4).

**6.2.2 Assessment of research first pattern**

Table 4: results of assessment of research second pattern (trade off model)

variables	Assessment coefficients	T statistics	Standard deviation	Meaningfulness level
Constant coefficient (y-intercept)	0.58	1.24	11.47	0.2849
Deficient (DIFF)	0.59	3.56	0.29	0.0000***
Determination coefficient	Adjusted determination coefficient	Durbin-Watson statistic	F statistic possibility	F statistics
R-squared	Adjusted squared	Durbin-Watson statistic	Prob (F-statistic)	F-statistic
0.65	0.60	1.81	0.000000	3.83

\* In 10 percent level, \*\* In 5 percent level, \*\*\* In 1 percent level

Due to F statistic (3.83) and achieved error level (0.000000) is less than 0.05 error level, in result, in 95% assurance level, one can say that in research model, it is fits well and has high meaningfulness.

R<sup>2</sup> = 0.65 represents adjusted determination coefficient represents description of independent variables. It means that more than 65 percent of dependent variable changes is justified by independent and control variables, while Durbin-Watson statistic amount is 1.81.

(1.5 < DW < 2.5). due to Durbin-Watson statistic, one can say that there is no serial correlation model among residual statements and acclaim lack of existence of self-correlation.

**7 Conclusion**

Main aim of doing this research is comparison of trade off theory and packing order theory in describing financial structure of accepted firms in Tehran's securities exchange by using data panel.

Due to results of research patterns assessment, these results are achieved:

Due to result of first pattern assessment, it is clear that:

Deficient variable in packing order model has negative and meaningful effect on net debit, so that one unit increase in deficient make 0.26 decrease in net debit.

Due to result of second pattern, it is clear that:

Deficient variable in trade off model has positive and meaningful effect on net debit, so that one unit increase in deficient makes 0.59 increase in net debit. Results suggest positive relation between longtime debit changes of studied firms and necessary adjustment to gain optimum debit level. In other words, steel industry firms tried to average usage amount of long time debit (optimum debit amount) that these results support trade off theory. Result related to trade off theory is different from Sandra and Mirez (1998) research that already confirmed by packing order theory. But it fits with result of Flannery and Ranjan (2006) research in U.S and also with general result of Bagherzadeh (2002) research in Iran that already confirmed by trade off theory.

## 8 Suggestions

It suggested that due to trade off theory, the firms in steel industry with decrease deficient, try to decrease own net debit.

It suggested that research subject is checked in various industries.

It suggested that detailed research about this subject separately is done by considering various definitions of capital structure.

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## THE EFFECT SHORT - RANGE OF ANTIOXIDANT AND CARBOHYDRATE SUPPLEMENTATION ON AEROBIC AND ANAEROBIC POWER OF YOUNG FEMALE VOLLEYBALL PLAYERS

<sup>a</sup> Fariba Joshagani, <sup>b</sup>Masoud Moini Shabestari, <sup>c</sup>Alireza Rahimi

<sup>a</sup> M. A, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>b</sup> Assistant Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>c</sup> Associate Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

Email: <sup>a</sup> fariba.joshanagi.t@gmail.com

<sup>b</sup>msdmoeini@yahoo.com, <sup>c</sup>arr\_swim@yahoo.com

**Abstract.** The purpose of this study was the short-term effect of antioxidant and carbohydrate supplementation on aerobic and anaerobic power of young female volleyball players in Qazvin Province. In this study 36 people were selected from a members of a volleyball team called. They were randomly divided into three groups. Each group consisted of 12 people: carbohydrate, antioxidant and placebo. Pre-test was done and variables related to aerobic and anaerobic power were tested by Mc Ardle test and RAST test. After 14 days, athletes received 120 ml of 5% monosaccharide and 100 ml of vitamin E and 200 mg vitamin C as antioxidant and 60 cc of maltodextrins. The result showed that there is no significant difference between short-term consumption of carbohydrates, antioxidants and placebo on aerobic capacity of girl volleyball players.

**Keywords:** carbohydrate, antioxidant, aerobic capacity, anaerobic power

### 1 Introduction

In today's world, physical education and sports is not limited to a specific field of expertise, art or skill and is regarded as a science with various aspects of theoretical and practical. Sports nutrition is considered as a branch of science including exercise that deals with the scientific study of the nutritional status of athletes in training and competitions and offers guidelines for nutrition. Research conducted in different countries in relation to nutrition and its impact on sporting performance is very widespread which provide the athletes with the new findings. Increasing achievement of sports as well as high expectations of athletes in different fields have caused the athletes to have a considerable attention to nutrition and dietary supplements from childhood and adolescence hood. Most experts believe that supplement nutrition have a key role in the success of athletes both in training and in recovery and as well as in tournaments. Although at this age the more attention should be toward technique and tactics. But, children's participation in heavy competition, such as national, continental and global championships have increased the importance of supplements and vitamins usages. It is because food alone cannot provide micronutrients in the body and leads micronutrients deficiencies. Sports injuries in soft and hard tissue is among the other issues that elite professional athletes and especially teens are facing wherein the proper usage of nutrients will play an important role in its improvement. Therefore, research has shown that protein carbohydrate supplementation will be effective in speeding up the recovery of athletes (Zoppi et al., 2006). The health of the young athletes in future is also very important in addition to the championships. Thus, the related research in this field implies that consumption of vitamin E have an important role in preventing cardiovascular disease. It is also to be noted that consumption of supplements postpones fatigue in the athletes (Bloomer, et al., 2007). Carbohydrates is considered as the main source of energy and the excessive usage of them lead to incensement of the energy of the body while the effects of E and C vitamins is not increased with the excessive usage and cause some problem in the body. Technical problems at different levels of sports is almost equal and it is the non-technical matters that transcends individual or team against another person. Issues such as nutrition, psychology, etc., in the past has lead the countries such as former Soviet Union (tables of Olympic medal before the collapse of the Soviet Union) and China to be among the top countries in the world (medal table 2008 Olympics). Scientific research suggests that nutritional and dietary supplements and antioxidants is to

improve the performance of the athletes (Mendel and Ehofheins, 2007). The effects that antioxidants and supplements on the rate of contraction of muscle in different forms is among the issues that have preoccupied the minds of researchers. Since previous studies have shown that supplementation has not a significant effects on the performance. However, the use of some of them effects on body composition and aerobic power. And the use of some supplements had no effect on some elements of fitness such as flexibility. On the other hand it has been found that athletes who eats food as the only supplier of energy have energy deficiencies. This energy deficit in men and in women in such a case is 4.7% and 2.7% respectively that should be covered using dietary supplements. In determining the appropriate nutritional advice in any sport, the assessment of the essential needs and determination of the prerequisite materials that limits the performance is crucial. In team sports, the players perform different exercises that the exercise intensity can change at any time and varies from the steady state to the extreme activities. Because of the nature intermediary of team sports the performance of the athlete at the end of the race after a period of intense activity is disrupted. Therefore, consumption of nutrients and supplements in team sports will be offered according to interval training. The found results shows that increasing the amount of muscle glycogen before competition can increase the performance in a team sport competitions. In agreement with this view, there is a finding that has been observed that the use of glycogen in the first half was more than its use in the second half of the competition. In addition, players with lower initial glycogen, covered a shorter distance, and had a lower activity especially in the second half, with respect to the players with the usual amount of muscle glycogen before the competition. Usually drinking liquids that contain carbohydrates provides few calories but is enough to delay fatigue during the tournament. And since the team sports use all of three means of energy during exercise and aerobic exercise is also one of the major systems involved in these types of activities, It should be noted that carbohydrates are the primary fuel source are aerobic system and only the macronutrients can be metabolized to produce energy. Therefore, in the absence of carbohydrates in team sports, athletic performance is in jeopardy. So, with a suitable a food strategy in the days and hours prior to the match, the athletes of the team sports have a rare muscle carbohydrate stores at the end of a game seems desperate. However, this does not mean that the ability of the athlete at the end of a game will not be affected. In addition, the antioxidant activity of some vitamins such as vitamin E and C and their positive effects against the harmful effects of free radicals, preventing arteriosclerosis, the heart attacks and ... cannot be ignored. In this study, researchers sought to answer this theory that:

Does carbohydrate supplementation and antioxidants can affect aerobic and anaerobic power of young volleyball players?

Is there a difference between the short term usage of carbohydrates and antioxidants complement on the aerobic and anaerobic power?

The results of this research can provide the coaches of volleyball team in different age level with the required knowledge on the usage of the carbohydrates and antioxidants supplements in the tournament. Also the effect of this drug on aerobic and anaerobic power, will be effective in improving the level of preparedness.

### 2 Methodology of the Research

This research is a quasi-experimental study and application. The study population consists of players selected from youth volleyball player of Bouin Zahra club in Qazvin Province. The number of athletes at this age category who were 85 people are between the ages of 18 and 25 years old and all the individual from the statistical society who participated in the study completed consent form. 36 athletes of the volleyball player who

had regular exercise were selected and then randomly divided into three groups of 12 subjects and before the start of training complementary carbohydrate solution and vitamins E and C were feed to two different group, and the third group received placebo (maltodextrins). All the participant in the study were team members of Bouin Zahra youth volleyball team who

participated as volunteers. Statistical society were consisted of Bouin Zahra youth volleyball players who were selected purposively all with the physical health who participated as volunteer. All these athletes has a previous athletic records with a suitable performance in volleyball.

Table1. weight, height and age of the participants

<i>variable</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Average</i>	<i>Standard Deviation</i>
<i>Weight</i>	40	70	58.8	5.8
<i>Height</i>	154	169	161.8	3.7
<i>Age</i>	18	25	25.8	6.7

In this study, the independent variables include carbohydrate supplements and vitamins E, C consumption and dependent variables are aerobic and anaerobic power. In order to measure the relevant factors, anaerobic and anaerobic power, the stair test of Mac Ardel and speed running test of RAST were used. In this study a 40 cm stair and a metronome with the brand of Wittner Junior made by Germany for measuring VO<sub>2</sub>max in the stairs test of Mac Ardel was used. Data were collected through field trials. Considering that the aim of this study was to evaluate the long term effect of carbohydrate supplement and antioxidant on the aerobic and anaerobic power, when this material was used by the athletes that the effect of exercise on aerobic and anaerobic had it impact were almost constant and only the effect of carbohydrate supplements and vitamins were assessed. The time of the pre-test and post-test and carbohydrate supplementation and antioxidants consumption were between 2 successive competitions. And thus one day before and one day after the 14-day consumption of carbohydrates and vitamin supplements the aerobic and anaerobic power tests were taken. Before the beginning of the exercise carbohydrate supplement in the form of water-soluble and vitamins E and C were given to two different groups. And maltodextrins as placebo was given to the third group a group (it is to be noted that all the three groups were is the same condition and individuals participated as volunteer). Mac Ardel stair test was used to measure aerobic power with a 16-inch (40 cm) stair with a four-step beat (top - up - down - down) and Compound of steps per minute for women. The duration of the test is three minutes.

$$VO_2Max_{woman}=111.33-0.42(\text{recovery beat rate in one minute})$$

In order to measure anaerobic power of youth volleyball players the test of RAST was used in which the player had to run a distance of 35 meters 6 times with 10 seconds of rest between each repetitions and then according to the time from every 35 meters, the required power of each repetition was is obtained.

$$Power (w) = \text{body mass (kg)} * \text{displacemet}^2 / \text{tim}^3$$

The peak power - the highest amount

The minimum power - the lowest amount

Mean power - mean power of 6 stages

Fatigue index =the total time of 6 stages / minimum power - peak power

The Monosaccharide were used as additives in this study. The first group of athletes used 120 CC a 5% solution of it, half an hour before exercise and the second group consumed 100 mg of vitamin E and 200 milligrams of vitamin C of Vigel type as well as chewing ascorbic acid daily (Zoopi 2006, Mokhlesi 1999, Ali Karami, 2009), and the third group used 60 CC of placebo (maltodextrins) respectively. In this study the obtained data were described and analyzes in two parts. In the first part, research variables were described using statistics such as mean, standard deviation, and tables and related charts and in the second part, to test the hypotheses, analysis of covariance (ANCOVA) and to compare the two groups Bonferroni post hoc test at the level of 0.05 with version 20 of the SPSS software was used.

### 3 Research findings

The results showed that there is no significant difference between the average effect of short term usage of carbohydrate supplement, antioxidant and placebo on aerobic capacity of young female volleyball players but there is no significant difference between the average short-term usage of carbohydrate supplementation, antioxidant and placebo on anaerobic power, the anaerobic maximum power and fatigue index;

In the other words, short-term usage of carbohydrate supplementation resulted in a significant increase in anaerobic power, maximum anaerobic power and fatigue index compared to the use of short-term antioxidant and placebo groups and there is no significant difference between the antioxidant intake and placebo on the maximum anaerobic power and anaerobic power and fatigue index.

### 4 Founding in three groups

#### 4.1 Investigation of the effect of carbohydrate supplement on the anaerobic power:

There is no significant difference between the short-term usage of carbohydrate supplementation on aerobic capacity of young female volleyball players. By the analysis of variance (ANCOVA);  $p = 452.0$  the null hypothesis is confirmed. In fact, there was no significant difference on the average of adjusted aerobic power of volleyball players of carbohydrate ( $M = 41.0$ ) and placebo groups ( $M = 40.8$ ).

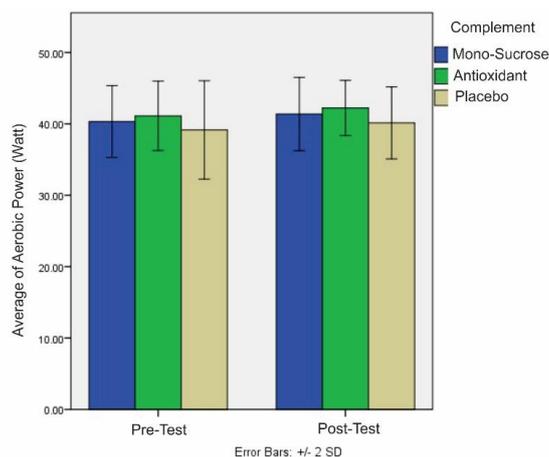


Figure 1. Average and standard deviation of aerobic power of research groups in pretest and post test

Table 1. Results of variance analysis (ANKOA) of aerobic power

Source	SS	df	MS	F	Sig
Pre-test	108.2	1	108.2	45.9	0.0
Carbohydrate	3.83	2	1.91	814.0	452.0
Error	75.4	32	2.35		

**4.2 Investigation of the effect of carbohydrate supplement on anaerobic power**

There is no significant effect between the short-term usages of carbohydrate supplementation on anaerobic power of youthful female volleyball players. Bonferroni test results; (P=5.0)

therefore the null hypothesis is rejected. Short-term usage of carbohydrate supplementation resulted in a significant increase in anaerobic power of young female volleyball players and there is also a significant difference between the adjusted average of anaerobic power of the consumer of carbohydrate supplementation (M=6.263) and placebo (M=7.210)

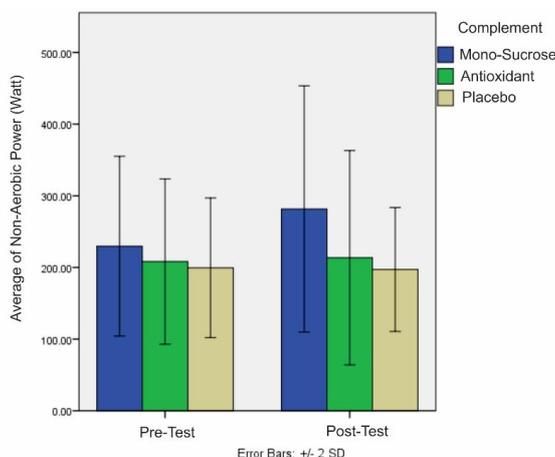


Figure 2. Average and standard deviation of anaerobic power of research groups in pretest and post test

Table 2. Variance analysis test (ANKOVA) of anaerobic power

Source	SS	df	MS	F	Sig
Pre-test	11569.0	1	115690.9	77.8	0.0
Carbohydrate	18791.4	2	9395.7	6.3	5.0
Error	47537.7	32	1485.5		

**4.3 The effect of antioxidants on aerobic power**

There is no significant effect between the short-term usages of antioxidants on aerobic capacity of young female volleyball players. Analysis of variance (ANCOVA). Hence, the null hypothesis is confirmed. There is no significant difference between the adjusted average of aerobic power of youthful

female volleyball players the of the antioxidants consumer (M=6.41) and placebo groups (M=8.4).

**4.4 The effect of antioxidants on anaerobic power**

There is no significant difference between the effects of short-term usage of antioxidants by young female volleyball athletes

on the anaerobic power. Bonferroni post hoc test; ( $P=0.1$ ). Therefore, the null hypothesis is confirmed. There was no significant difference between the anaerobic power of the Young girl volleyball player consumer of antioxidant and placebo groups.

#### 4.5 Reviewing the impact of carbohydrates and antioxidants supplementation on aerobic and anaerobic power

There is no significant difference between the impact of short-term usage of antioxidant and carbohydrate supplementation on aerobic and anaerobic power of young female volleyball players. Bonferroni post hoc test, so the null hypothesis is rejected. There is a significant difference between the adjusted average young girl volleyball player of carbohydrates, antioxidants and placebo groups in aerobic and anaerobic power. In the other words the results of Bonferroni test showed that the usage of the carbohydrate supplementation of results in a significant increase in aerobic power of female young volleyball players with respect to antioxidants usage.

### 5 Discussion and conclusion

#### 5.1 Discussion

Ramezanpoor (2003) performed a study entitled ergogenic effect of 8 weeks supplementing usage of vitamins C and E in adult football players and the results showed that in both groups speed, maximum strength, aerobic capacity, and the fatigue time is improved and the variation of blood lactate concentration after maximal exercise is decreased. Comparison of the two groups in the pretest and post test showed that there is no significant difference in any stage. This research is consistent with the present study. Hoffman et al., (2008) conducted a study as testing an energetic supplement before the exercise on the performance of the exercise. The study was conducted on 12 strength athlete males in which one groups was feed 120 ml of energetic beverage while another group was given a same amount of placebo which was done after 2 minutes at the end of each agility practice and after 10 minutes of aerobic test the obtained results showed there is no significant difference in performance between groups using the ineffective drug and the group using the supplement. This research is consistent with the present study.

Mahrooghi, (1998) performed a study aimed to comparison of the effects of creatine supplementation with mixture of creatine-Carbohydrates on the anaerobic power and cellular damage indices (CK, LDH) in boys aged 18-15 years of Koohrang city. The results showed that in the second experimental group the usage of creatine supplementation improved anaerobic power ( $P < 0.05$ ). Also the usage of creatine significantly increased the levels of creatine kinase and lactate dehydrogenase ( $P < 0.05$ ) in this group. But in the group which has used creatine along with carbohydrates, anaerobic power increased significantly ( $P < 0.001$ ), whereas CK and LDH enzyme did not increase significantly. No significant differences observed in CK and LDH enzymes and anaerobic power of the carbohydrates group. The above research is not consistent with the present study. It may be because the subject were not athletes and the usage period of the supplement was short and they were with different age and gender.

Rahimi, (2003) performed a study entitled the effects of a supplementation on the levels of ATP, muscle strength, power and endurance. The results showed that there is no difference in the vertical jump (anaerobic power) but the level of ATP is increased. This study is not in line with the results of the present study it may be because of the difference between the type of carbohydrates in two research and the period of its consumption or because of the difference in gender and age of the subjects.

Rahim (2009) performed a study as the effect of ascorbic acid supplementation on aerobic and anaerobic power of handball players and there was no significant changes in aerobic and

anaerobic performance of the groups with respect to placebo group. This research comply with the present research study given that antioxidants combination of vitamins E and C, and with a much more time was used in the present study there was no significant difference on the aerobic and anaerobic power.

Gaeini and Rajabi (2003) performed a study entitled six-week effect of usage of Q10 coenzyme supplementation on aerobic endurance, maximum power, minimum power, average power, and fatigue index of football players. The results showed there is significant differences ( $P < 0.05$ ) in the amount of aerobic capacity. While in contrast no significant change observed in the amount of anaerobic performance parameters including maximum power ( $p=0.933$ ), minimum power ( $P=258$ ), average power ( $P=625$ ) fatigue index ( $P=0.569$ ). This research is consistent with the present study.

DeNysschen et al., (1999) in their research investigated effect of two regimes of vitamin c (100 and 200 mg) on the aerobic (vo2max) and anaerobic power. The results showed that daily doses of 100 and 200 mg of vitamin C for a week of have no significant effect on the aerobic and anaerobic power of physical education students of Gilan. This research is consistent with the present study. Given that antioxidants combination of vitamins E and C, with a more period of time is used in this research but as the above study, no significant difference was observed on the aerobic and anaerobic power.

Kreider et al., (2007) performed a study entitled fallacy effect of usage of the dietary supplements used by young athletes of Great Britain. The research was on girls and boys 12 to 21 years old ( $403 = N$ ) was performed. The research showed that the consumer of the supplements believe that there is a direct link between the use of their favorite supplements and their performances. Now young athletes are moving away from health and only focus on their performances. This research study do not match. It seems that the carbohydrates and antioxidants supplements usage have a positive effect on several factor of the present study including anaerobic power, maximum aerobic power and fatigue index which may be because of the difference between the types of the carbohydrate or antioxidants or because of the difference between the time and period of usage of these supplements.

Clark et al., (2000) conducted a study entitled the effects of vitamins E, C and combination of both on bioenergetical index of sports man. The results of this study showed that a daily intake of 400 mg of vitamin E, 1000 mg of vitamin C and 400 mg of vitamin E along with 1000 mg of vitamin C for three weeks has a significant effect on the aerobic and anaerobic power of the students. This research study do not match with the present study.

### 6 Conclusion

According to the results we can say that the daily usage of carbohydrate supplementation at a rate of 120 cc for 14 days may be effective on the anaerobic power, maximum aerobic power and fatigue index of young girls, but the daily consumption of 100 and 200 mg of vitamin E and C for 14 days have no significant effect on aerobic power and anaerobic power (maximum anaerobic power and fatigue index). So the usage of the carbohydrate can be suggested to the athletes and coaches this sport in this age group with the he determined amount of intake.

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## EXAMINATION OF ORGANIZATIONAL INTELLIGENCE COMPONENTS AND KNOWLEDGE MANAGEMENT IN LAVAN OIL REFINING COMPANY

<sup>a</sup>MAJID FALLAH <sup>b</sup>MOHAMMAD MAHMOUDI  
MAYMAND

<sup>a</sup> MA of Executive Management, Department of Management,  
Islamic Azad University, Kish International Branch, Kish, Iran <sup>b</sup>

<sup>b</sup>Associated professor of Department of Business Administration  
& MBA, Payame Noor University, Tehran, Iran

Email: <sup>a</sup>m\_qi1385@yahoo.com

\*Corresponding Author Email: drmahmoudim@yahoo.com

**Abstract.** With increasing changes in society, organizations need to adopt themselves with environmental conditions and for this purpose they should beside revise their organizational structure, improve their relationship patterns with other organizations. The research method used is descriptive to survey and in terms of purpose is applied one, which preparing and distributing a questionnaire among 148 managers with the organizational position was performed. Based on the results of the test, it was determined there is a direct positive relationship between organizational intelligence and knowledge management as well as according to secondary hypotheses. Therefore, according to the research findings can be accepted by 95% confidence there is a direct relationship between organizational intelligence and knowledge management.

**Keywords:** Organizational Intelligence, Knowledge Management, the desire to change, performance pressure, common fate, spirit, application of knowledge, unity and agreement

### 1. Introduction

Today we can claim with absolute certainty that identifying and using organizational intelligence can increase the competitiveness of an organization and differentiate it from other organizations. The necessity of organization intelligence application increases the efficacy of existing structures in order to their objectives and information from restricted and operational mode will be developed to the use in executive levels for managers. Given that managers are working in organizations that are affected by their indoor and outdoor environment, so the organizational intelligence can help managers and enable them to meet the needs and timely response to the environmental changes, therefore, relying on it improve their performance.

On the other hand, despite it seems knowledge as a resource is essential to the survival of organizations, but in many organizations the knowledge management has been considered seriously. The importance of people knowledge in organizations and participation in organization people knowledge is one of the key and effective in increasing organizational efficiency.

Finally, knowledge management is one of the most important factors of the company's success in a competitive situation. The importance of this issue is to the extent that today a number of organizations measure their knowledge and reflect this

knowledge as intellectual capital as well as an index for rating agencies and companies in their report.

### 1.1. Statement of the problem

Organizational intelligence and knowledge management has a considerable impact on productivity, performance improvement of organization and increase a company's competitiveness, so that addressing both issues resulted in synergistic property and is an important step to enhance the organization, so there this issue how much the organization value these two issue? And whether the organization concerns them? For this purpose to clarify the matter we decided to examine the relationship between organizational intelligence and knowledge management and determine whether there is a relationship between these two matters?

Thus, the main research question is to investigate the relationship between organizational intelligence and knowledge management in Lavan Oil Refining Company.

### 1.2. Necessity of research

Investigation of the relationship between organizational intelligence and knowledge management can be resulted in more understanding of concept and its related dimensions and this leads to more flexibility in organization members in relation to environmental changes organization and increases the competitiveness power of organization and finally leads to preservation, survival and promotion of organization.

### 2. Literature (research background)

The intelligence in Thorndike's point of view, in fact, is a partial theory of mental ability. Thorndike insisted that many of the elements in a given mental activity, are share, therefore, they can be used in various classes, for example, they can be divided in verbal meanings groups, mathematical reasoning, comprehension, subjective understanding and so forth (Thorndike,1937).

Mehara et al., (2012) believe that people with higher IQs are more successful and efficient.

In the management literature several definitions have been provided for organizational intelligence. Since 1967 that the concept of organizational intelligence was raised by Wilensky, a lot of research has been done about organizational intelligence, but still there is no single definition of organizational intelligence (Xuezhony & Zhaohan, 2008).

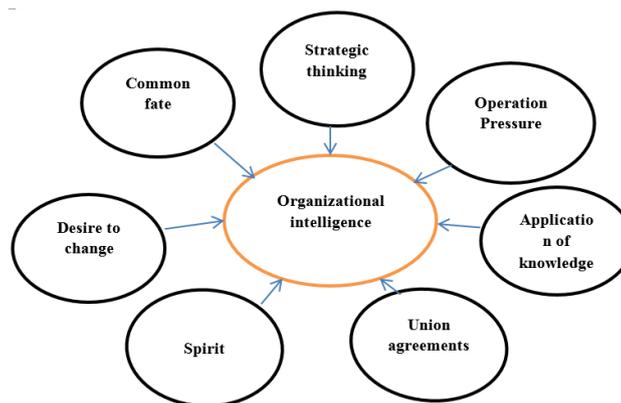


Figure .1: Dimensions of Organizational Intelligence according to Chenari (2015)

Beheshtifar and Pourafghan they in 2015 in a study concluded that there was a significant relationship between organizational intelligence and organizational success and organizational intelligence is a basic approach to improve performance and achieve success in the long term (Beheshtifar and pourafghan, 2015).

### 2.1. Organizational knowledge

Today in competitive environment of the business, the most important determining factor for the development and survival of each organization is the existence of knowledge. Taking advantage of this knowledge that the organization is run and process of production is circulated. Without an important tool such as knowledge, the running of an organization and doing its tasks virtually will not be possible. By knowledge, the organizations provide services and products and the organization is kept in the competitive market and its survival is assured. But how that knowledge is gained and how is managed in a satisfactory way is very important.

The most important issue in this regard is used today, is the organizational knowledge management that with effective knowledge management process, such as: Knowledge creation, knowledge transfer or knowledge sharing, and ultimately knowledge utilization conduct the organization in productivity path and organization sublimity.

### 2.2. The definition of knowledge management

To achieve information and data that can be effective and usable in different ways, different times and in different conditions. The knowledge includes perception and understanding obtained through reasoning, intuition and learning.

Ellen Knapp states: Knowledge Management is the art of transforming information and intellectual assets into sustainable value for its clients of company and its individuals (Seifollahi and Davari, 2008).

Chenari (2015), in his opinion, knowledge management in organizations should be considered from three perspectives or horizons and different goals (Figure1):

1-The business perspective 2-The management perspective 3-The operational support perspective

The business perspective: focusing on why, where and to what extent the organizations should invest on the productivity of knowledge. Strategies, products, services, alliances, acquisitions, or a lack of investment must be considered in a knowledge-based view. The managerial perspective: focusing on organizing determination, directing, facilitating and monitoring the knowledge-based activities and measures required to achieve the desired objectives and enterprise (organizational) business.

The operational support perspective: recognizes this point that knowledge managers should pay attention to knowledge processing (Seifollahi and Davari, 2008).

### 2.3. The relationship between knowledge management and organizational intelligence

Future competitive advantages will be revealed to the organization's ability to manage knowledge and information and physical and financial capitals are replaced by intellectual and mental capitals and the power of the mind would be dominant power in the arenas of global competition. Drucker, using terms such as knowledge work, knowledge workers and knowledge organization, suggests a new type of organizations that in such an environment depends on the abilities of knowledge. Therefore, improving and promoting organizational intelligence

on the implementation of knowledge management can be very efficient in smart organizations design and exploiting opportunities and cope with environmental threats (Taheri Larry, 2010).

The importance of organizational intelligence integrating and knowledge management have been reviewed by Richard and Noori and the aim of this study is to present an analysis of the difference between knowledge management and organizational intelligence and establishing a base (framework) for its relationship with other fields in work environment. Findings from this study demonstrated the effectiveness of organizational intelligence based on knowledge building and development and improvement of mental models cause the increased understanding of integrity in decision-makers (Richard and Noori, 2005).

Azami and Yaghobi (2016) in their study investigated the relationship between organizational intelligence and conflict management and came to the conclusion that there is a significant positive relationship between all aspects of organizational intelligence and conflict management and they believe that successful organizations have a higher IQ and are desirable in terms of management and can obtain the highest efficiency of human resources.

Josef Haddad in 2006 has addressed the issue of knowledge management and in that research has considered the components of knowledge management include knowledge creation, knowledge establishment, knowledge registration and knowledge sharing and has defined them.

Richard and Noori based on research carried out in 2005 concluded that the effectiveness of organizational intelligence based on development and promotion of knowledge and improvement of mental models will increase the understanding in decision-makers about their integration.

Metora and Varla in 2004 examined the intelligence and knowledge management and concluded that the knowledge and intelligence can be improved through practice and they will be destroyed in lack of practice.

## 3. Research Methodology

This study is a survey-descriptive and in terms of purpose is an applied one. The type of research is applied.

### 3.1. Statistical population

The statistical population of this research is Lavan Oil Refining Company employees that have organizational position and totally are 557 people.

### 3.2. Sampling

In the present study simple random sampling method is used. In the random sampling, after determining the sample using Morgan table, with allocation proportional with population size, the sample size for this method to be determined.

To determine the sample size in this mode Morgan table (see Appendix 1) has been used in which the sample size is 148.

### 3.3. Data collection tools

In this study, questionnaire has been used as the main instrument to collect field data, because data collection with this volume (size) and limited time with other tools wasn't possible.

### 3.4. Methods of data analysis and hypotheses test

Analysis of the collected data in this research is conducted using appropriate statistical tests including Pearson correlation coefficient and regression analysis and since the default of many statistical tests including Pearson correlation and coefficient regression analysis is the normality of observations, Kolmogorov-Smirnov test is used for normality of observations.

### 3.5. The examination of research hypotheses

In this section, the research hypotheses, in other words, the relationship between the variables, are examined. Based on the results in the previous section to investigate the relationship between organizational intelligence and knowledge management, as well as between the components of organizational intelligence and knowledge management Spearman correlation coefficient is used.

### 3.6. The main hypothesis

To investigate the claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 1: The correlation test of main hypothesis variables based on Spearman correlation test

	Knowledge Management	Organizational Intelligence
Knowledge Management - correlation coefficient	1.00	0.450
The significance level	148	0.00
Number		148
Organizational Intelligence - correlation coefficient	0.450	1.00
The significance level	0.00	148
Number	148	

Based on the output of correlation test table 1, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.45.

### 3.7. First sub-hypothesis

Table 2: The correlation test of sub-hypothesis (1) variables based on Spearman correlation test

	Knowledge Management	Strategic vision
Strategic vision - correlation coefficient	1.00	0.129
The significance level	148	0.119
Number		148
Knowledge application - correlation coefficient	0.129	1.00
The significance level	0.119	148
Number	148	

Based on the output of correlation test table, since the sig is more than 0.05, there are no sufficient reasons to reject the null hypothesis and there is no correlation between these two variables. (Table 2)

### 3.8. Second sub-hypothesis

Table 3: The correlation test of sub-hypothesis (2) variables based on Spearman correlation test

	Knowledge Management	Common fate
Performance pressure - correlation coefficient	1.00	0.341
The significance level	148	0.046
Number		148
Knowledge application - correlation coefficient	0.341	1.00
The significance level	0.046	148
Number	148	

Based on the output of correlation test table, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.341. (Table 3)

### 3.9. Third sub-hypothesis

To investigate claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 4: The correlation test of sub-hypothesis (3) variables based on Spearman correlation test

	Knowledge Management	Desire to change
Desire to change - correlation coefficient	1.00	0.439
The significance level	148	0.034
Number		148
Organizational Intelligence - correlation coefficient	0.439	1.00
The significance level	0.034	148
Number	148	

Based on the output of correlation test table, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.439.(Table 4)

### 3.10. Fourth sub-hypothesis

To investigate claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 5: The correlation test of sub-hypothesis (4) variables based on Spearman correlation test

	Knowledge Management	Spirit
Knowledge Management- correlation coefficient	1.00	0.091
The significance level	148	0.088
Number		148
Spirit - correlation coefficient	0.091	1.00
The significance level	0.088	148
Number	148	

Based on the output of correlation test table, since the sig is more than 0.05, there are no sufficient reasons to reject the null hypothesis and there is no correlation between these two variables.(Table 5)

### 3.11. Fifth sub-hypothesis

To investigate claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 6: The correlation test of sub-hypothesis (5) variables based on Spearman correlation test

	Knowledge Management	Unity and agreement
Knowledge Management- correlation coefficient	1.00	0.192
The significance level	148	0.019
Number		148
Organizational Intelligence - correlation coefficient	0.192	1.00
The significance level	0.019	148
Number	148	

Based on the output of correlation test table, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.192. (Table6)

### 3.12. Sixth sub-hypothesis

To investigate claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 7: The correlation test of sub-hypothesis (6) variables based on Spearman correlation test

	Knowledge Management	Knowledge application
Knowledge Management- correlation coefficient	1.00	0.405
The significance level	148	0.00
Number		148
Knowledge application - correlation coefficient	0.405	1.00
The significance level	0.00	148
Number	148	

Based on the output of correlation test table, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.405. (Table7)

### 3.13. Seventh sub-hypothesis

To investigate claim of correlation between two variables, we use the Spearman correlation coefficient.

Table 8: The correlation test of sub-hypothesis (7) variables based on Spearman correlation test

	Knowledge Management	Performance pressure
Performance pressure - correlation coefficient	1.00	0.492
The significance level	148	0.00
Number		148
Knowledge application - correlation coefficient	0.492	1.00
The significance level	0.00	148
Number	148	

Based on the output of correlation test table, since the sig is less than 0.05, the null hypothesis is rejected and there is a correlation between these two variables. The correlation coefficient for 148 data is 0.492. (Table8)

## 4. Results

### 4.1. The results of the main hypothesis

According to the analysis done through correlation it can be said that in the main hypothesis there is relationship between knowledge management and organizational intelligence in Lavan Oil Refining Company. Since the correlation coefficient is 0.450, with 95% confidence can be accepted the relationship is direct and positive.

### 4.2. The results of first sub-hypothesis

According to the analysis done through correlation it can be said that there is no relationship between knowledge management and strategic vision (first sub-hypothesis) in Lavan Oil Refining Company.

### 4.3. The results of second sub-hypothesis

According to the analysis done through correlation it can be concluded that there is relationship between knowledge management and common fate in Lavan Oil Refining Company. Since the correlation coefficient is 0.34, with 95% confidence can be accepted the relationship is direct and positive.

### 4.4. The results of third sub-hypothesis

According to the analysis done through correlation it can be concluded that there is relationship between knowledge management and desire to change in Lavan Oil Refining Company. Since the correlation coefficient is 0.439, with 95% confidence can be accepted the relationship is direct and positive.

### 4.5. The results of fourth sub-hypothesis

According to the analysis done through correlation it can be said that there is no relationship between knowledge management and spirit (fourth sub-hypothesis) in Lavan Oil Refining Company.

### 4.6. The results of fifth sub-hypothesis

According to the analysis done through correlation it can be concluded that there is relationship between knowledge management and unity and agreement in Lavan Oil Refining Company. Since the correlation coefficient is 0.192, with 95% confidence can be accepted the relationship is direct and positive.

### 4.7. The results of sixth sub-hypothesis

According to the analysis done through correlation it can be concluded that there is relationship between knowledge management and knowledge application in Lavan Oil Refining Company. Since the correlation coefficient is 0.405, with 95% confidence can be accepted the relationship is direct and positive.

### 4.8. The results of seventh sub-hypothesis

According to the analysis done through correlation it can be concluded that there is relationship between knowledge management and performance pressure in Lavan Oil Refining Company. Since the correlation coefficient is 0.439, with 95% confidence can be accepted the relationship is direct and positive.

## 5. Recommendation and conclusion

### 5.1. Recommendation based on literature

Considering the literature and the studies that have been done to develop this research, the following proposals (recommendation) for improving organizational intelligence and knowledge management are offered.

1. Training the employees to identify and strengthen the awareness regarding variables and components of organizational intelligence and knowledge management
2. Encourage the employees to use the latest achievements of organizational intelligence and knowledge management technology systems
3. Develop and promote the process of innovation and learning and transforming organizational environment to a flexible initiative environment in exposure to the new success toward strengthen organizational intelligence and knowledge management
4. Putting in the access to knowledge and employees easy access to it at all levels of the organization in order to support the growth of knowledge
5. Create mechanisms to share knowledge among employees and promote a culture of knowledge system
6. Advice to managers to plan for the continuation and development of knowledge in organization in such a way that it remains sustainable at the corporate level
7. To build the capacity in organizations to achieve new knowledge and training managers to offer different ways of creating knowledge
8. Create focal points for knowledge sharing to connect and dissemination of employees knowledge with the aim of strengthening their potential capacities
9. Scientific - applied conferences about knowledge management and organizational intelligence in order to improve these two key issues among staff
10. The research support of organization of people who are active in the field of knowledge management and organizational intelligence
11. Create a feedback mechanism to organizational intelligence and knowledge management influence and providing feedback on the performance of these two components and promoting it in order to strengthen productivity and improve organizational performance

### 5.2. Recommendation based on results

1. According to the results of the main research hypothesis, given that totally there is a direct and positive relationship between organizational intelligence and knowledge management, the organization must creating measure mechanisms determine the level of organizational intelligence and applying knowledge management in the organization individuals and using training, seminars and conferences, both in internal and external levels, compensate the existent weaknesses and shortcomings and strengthening these two components in the company, in order to using this potential and optimizing achieve high efficiency in all areas. The organization should consider this strengthening of each of the components boost another and synergies and additional modes in the recovery of the two components are achieved.
2. According to the first sub-hypothesis, to promote knowledge management it is recommended the organization in the first step identify and describe its own purpose and therefore choose a good perspective for itself.
3. According to the second sub-hypothesis in the research, the organization must properly define and specify its mission and involve all employees through training and consultation employment until retirement.
4. According to the third sub-hypothesis, organizations need to review business models to provide a favorable opportunity for managers' success and these patterns that promotes the desire for change (promotion) must be consistent with the necessary changes to achieve the strategic vision.

5. According to the results of fourth sub-hypothesis in research, the organization should enhance employees' quality of life and pay attention to employees' feelings about work and management to interest, commitment and optimism of employees towards work and organization to be enhanced, because such a program as the spirit could have a positive effect enterprise (organizational) intelligence.

6. According to the fifth sub-hypothesis, the organization should arrange its organizational structure be based on a clear strategy in such a way resolve the bottlenecks and constraints causing lack of transparency and understanding of the duties and responsibilities.

7. According to the sixth sub-hypothesis, the organization must provide the background the implementation of knowledge management in organization and using the tools of information technology to take advantage of valuable staff (employees) resources, ideas and information.

8. According to the seventh sub-hypothesis, organization must make available job descriptions to managers in a way that specifically all of them recognize their responsibility (duties) well and organization must arrange a performance assessment team in order to the managers get feedback on their performance.

#### 6. Suggestions for future research

1. In the context of the development of organizational intelligence components in organization some studies are done.
2. The next suggestion is that the organizational intelligence programs are compared with knowledge management in some organization or subsets of an organization the quality of these programs separately to be determined.
3. The subject of investigation of the relationship between intelligence and management in other population such as pupils, students or another organization to be investigated.
4. The researchers study on the individual components of the intelligence organization with knowledge management separately.
5. In the context of creation and development of culture, establishment and sharing knowledge in the organization as a whole or individually be investigated.
6. Given that yet in our country, many organizations do not consider these two important issues or practically do not use and considering the vertical hierarchy organizational structure it is recommended training- briefing courses are held for all executives of organizations.
7. Some research on the causes of lack of consideration of senior managers of Iranian companies to organizational intelligence and knowledge management is conducted.

#### 7. Limitations and problems of research

- Among the limitations of this study, that researcher was faced with a shortage of research findings on the relationship between organizational intelligence and knowledge management. Since the organizational intelligence in the context of public management is a relatively new concept, the study was lower in this case than in other cases.
- Lack of cooperation by some people due to lack of interest to participate in non-work activities and prolong distributing and collecting questionnaires among agencies (organizations).

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## THE EFFECT OF RISK MANAGEMENT ON FINANCIAL PERFORMANCE IN TEHRAN STOCK EXCHANGE

<sup>a\*</sup>MOHAMMAD MAFIHA, <sup>b</sup>TAHER POURPARTOVI

<sup>a\*</sup>M.Sc. Student, Department of Management, School of Management and Human Sciences, BuinZahra Branch, Islamic Azad University (IAU), BuinZahra, Iran

<sup>b</sup>Faculty Member, Department of Management, School and Human Sciences, BuinZahra Branch, Islamic Azad University (IAU), BuinZahra, Iran

Email: <sup>a\*</sup>Mohammad\_Mafiha@Yahoo.Com

<sup>b</sup>Mtp2961@Gmail.com

**Abstract.** The aim of this study was to measure the effects of risk management on the financial performance of companies listed on the Stock Exchange of Tehran. Research in terms of empiricist epistemology, it argued systems, inductive and from the study, is the archival field. The population of this research in terms of geographical scope is limited to firms listed in the Tehran stock exchange in terms of time, including a six-year period from the beginning of fiscal year 2011 up to the end of the fiscal year 2015. That statistical sample size of 95 firms among firms accepted in Tehran Stock Exchange were selected by systematic elimination. The results showed that the hypotheses of risk management reporting and management of risks of non-compliance with laws and regulations on the financial performance of companies listed in has a significant effect.

**Keywords:** Risk Management, Strategic Risk Management, Operational Risk Management, Financial Reporting Risk Management, Financial Performance

### 1. Introduction

Due to extensive changes and technological progress in various fields, the stock market as a factor in development of a society is faced with enormous changes (Hoyt and Liebenberg, 2009). With the growing competition between the threats and opportunities facing today's organizations and all organizations at national and international levels, the concept of risk has greatly increased. So threats can be mentioned that the organization fails. The managers for the growth and survival of the organization should think of ways to reduce the risks of undesirable (Lv and Dongping, 2015).

In the meantime, enterprise risk management with a systematic approach, the risks in an industry and commercial enterprise creates maximum opportunity. In the business environment, especially Stock Exchange, companies and industries with more risk and higher impact factor, face, therefore, the importance of risk management techniques in this firm is very essential and important (Boone and Kurtz, 2012).

Risk management system that the organization identify and analyze the risks and to adopt a set of techniques and strategies to deal with them. The definition of risk management is made up of three components; identifying and risk analysis, techniques, and strategies for coping with risk and feedback. These components make up the basic principles of risk management and risk management are more or less in all views (Gordon et al. 2009).

On the other hand, in recent years there has been a change of paradigm in the way of approach to risk management, so that instead of studying risk management from an island perspective, holistic approach to risk management is adopted. ERM interests of all stakeholders, including shareholders, creditors, senior managers, employees, customers and provides member associations (Bruce, 2014).

However, the results of many studies about the role and importance of risk management, emphasized that the company be considered when successful, the continuous development of its financial performance due to effective management of risk is comprehensive. The main problem is whether research, risk management and financial performance of companies listed on the stock exchange has a significant effect? To answer this question in the present study was to assess the financial

performance of companies listed in Tehran Stock Exchange rate of return on equity (ROE) is used. Since the main objective of management is to benefit the shareholders, with a ROE accounting approach can now be considered the ultimate measure of financial performance. As well as risks that are studied in this research as risk management, includes four categories: strategic risk management, operational risk management, risk management reporting and management of risks of non-compliance with laws and regulations (Gordon et al. 2009).

Strategic risk management, strategic risk management and systemic risks in the industry (external risks) is formed, which includes the company's ability to reduce systematic risks. Management of operational risks; risk management techniques to increase staff efficiency as well. The output data rate is an accurate measure of the operational risk management of sales divided by the number of staff has been achieved.

Risk management reporting; accurate reporting is crucial to success in all aspects. A benchmark for low reliability of financial reporting, the combination of the three factors is important weaknesses in internal controls, qualified audit reports and the restated financial statements. Weaknesses in internal control auditing standard for quantification of variables that Tvsrt performance audit consultants and internal auditors is done, is used, which is calculated mandatory stock companies. As well as on weighted average standard variable qualified audit reports provided reports on company activities over the years is used. Variable restated financial statements as well as variable expressed qualified audit reports.

Manage the risks of non-compliance with laws and regulations, with the arrival of the company to the stock exchange, the company would have to observe the laws and regulations governing the relationship is not with the environment. That is why the risk of non-compliance with laws and regulations is a wide range of risks. One of the most efficient tools in the field of auditing standards is accepted. The measure of non-compliance with laws and regulations manage the risks involved in this research is audit fees to total assets.

### 2. Methodology

The variables in this study include variable risk management (including strategic risk management, operational risk management, risk management reporting and management of risks of non-compliance with laws and regulations) as independent variables and the rate of return on equity (ROE) as an indicator of financial performance as the dependent variable based on the research base Olamide et al (2015) based on the extraction and conceptual model that has been drawn. To assess the financial performance of companies listed in Tehran Stock Exchange rate of return on equity (ROE) is used.

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Manage the risks of non-compliance with laws and regulations, with the arrival of the company to the stock exchange, the company would have to observe the laws and regulations governing the relationship is not with the environment. That is why the risk of non-compliance with laws and regulations is a wide range of risks. One of the most efficient tools in the field of auditing standards is accepted. The measure of non-compliance with laws and regulations manage the risks involved in this research is audit fees to total assets.

The research hypothesis test models;

$$ROE = \beta_0 + \beta_1 (SRM) + \beta_2 (ORM) + \beta_3 (RRM) + \beta_4 (NLRM) + \epsilon_{it} \quad (1)$$

The research in the field of research funding is positive. According to the historic data is used to test the hypothesis, the research team used a quasi-experimental and post-event. Research in terms of empiricist epistemology, it argued systems, inductive and from the study, is the archival field. The study population includes firms listed in the Tehran Stock Exchange between the years 1389 to 1393 in which a financial faces in the years-have provided to the Stock Exchange. This is because access to reliable information and audited financial faces respectively. The number of active firms in Tehran Stock Exchange at the beginning of 1388, about 342 companies respectively. Sampling in this study is the systematic elimination.

1. Between 2011 and 2015 the number of companies that have participated in exchange and investment companies and banks are not.
  2. Investment companies and banks and insurance companies that are not.
  3. Companies that have their fiscal year ending on 29 March.
  4. Companies with fiscal year not change during the study.
  5. The companies whose financial information is available in the time period studied.
- The number of firms for which data were collected (final sample of 122 companies).

### 3. Finding

The main hypothesis of this study: risk management on financial performance of companies listed in Tehran Stock Exchange has a significant effect.

H0: risk management on financial performance of companies listed in Tehran Stock Exchange had no significant effect.

H1: risk management on financial performance of companies listed in Tehran Stock Exchange has a significant effect.

Table 1: The results of researcher model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SRM	0.58425	0.111229	5.254110	0.0000
ORM	0.17017	0.03082	5.521425	0.0000
RRM	0.14811	0.035668	4.152410	0.0000
NLRM	0.13421	0.047509	2.824951	0.03944
C	0.0851	0.046638	1.824725	0.3348
Effects Specification				
Weighted Statistics				
R-squared	0.167448	Mean dependent var.		0.308503
Adjusted R-squared	0.164122	S.D. dependent var.		0.518174
S.E. of regression	0.449824	Sum squared resid.		76.68731
F-statistic	41.00459	Durbin-Watson stat		2.167485
Prob (F-statistic)	0.000000			

To test this hypothesis, the results of the model are presented in Table 1 have been used. The likelihood or significance level for each variable is less than 0.05, the null hypothesis is rejected at the 95% confidence level. The Durbin-Watson statistic is the amount 2.167, shows his lack of solidarity. Also, according to the t-statistic for the variables are significantly different (due to exposure to the centroid +1.96 and -1.96, or critical values at 95%), according to the above main hypothesis can be confirmed. as closed. This means that risk management on financial performance of companies listed in Tehran Stock Exchange has a significant effect. Given the significant level of 0.000 F test results (such as the amount is less than 0.05) showed that the scattering data of the regression line distribution is reasonable. The coefficient of determination risk management model shows the financial performance of companies listed in Tehran Stock Exchange 16.7 percent implications.

#### 4. Conclusion

According to findings, following outcomes are proposed:

- Reform of corporate annual accounts
- Reform of the regulations and guidelines required
- Internal control system systematically up
- Reform of accounts between Groups
- Disclosure of related party transactions in accordance with Accounting Standard No. 12.
- The inclusion of binding rules and regulations for the statute
- The use of consultants and legal experts versed in company
- Executed auditor and legal inspector comments and criticisms point by point
- Trying to obtain quality assurance certificates and safety.

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**Primary Paper Section:** A

**Secondary Paper Section:** AE

# PRINCIPLES OF CRIMINALIZATION OF SEXUAL BEHAVIOR IN IRAN AND ENGLAND CRIMINAL LAW WITH AN EMPHASIS ON PREVENTION STRATEGIES

<sup>a</sup>AINAZ DERAY, <sup>b</sup>ARSALAN GHORBANI

<sup>a</sup>Department of law, Bandar Anzali Branch, Islamic Azad University, Bandar Anzali, Iran

<sup>b</sup>P.h.D Professor, Department of International Relations, Faculty of law and Political Sciences University of Kharazmi, Tehran, Iran

Email:<sup>a</sup>ainazderay@yahoo.com,

<sup>b</sup>arsalan.seng.ghorbani@gmail.com

**Abstract:** Criminalization of a sexual behavior can prevent its occurrence in society. But sometimes In addition, behaviors that are the introduction of an abnormal behavior occurrence are also considered as crimes and the bigger crime can be prevented. But this may lead to indulge in criminal or penal inflation. Given the definition of the crime, criminalization can be called the selection process in which legislators with regard to social norms or other necessities and based on the theoretical foundations of acceptable behavior prohibits or binds a behavior, and ultimately to support it, provides criminal sanctions. Criminal law is a relative concept in terms of misdemeanor and felony society and is subject to change at different times and places.

**Key words:** Criminalization Principles, sex crime, preventive strategies

## 1 Introduction

The current paper is designed in several sections. First of all, we will provide the reader with a brief introduction to sex criminalization concept. Then, the paper investigated the United Kingdom approach towards criminalization of sexual behavior and the causes and motives in their criminal law in addition to concept and principles of sex criminalization in Iran. Later, we will discuss the issue of prevention. In fact, the current paper tries to answer the following questions: "Is it possible to provide Iran and the United Kingdom with the same preventive measure despite the differences in the principles of criminalization?"; "are the sex crimes are the same for both Iran and the United Kingdom? And is the knowledge of foundations of sexual behavior from the perspective of criminology preventive strategies effective to treat such deviations? What is certain is that it cannot be expected to achieve accurate and efficient preventive measures without the identification of the root causes of crime. Factors affecting sexual abuse must be recognized in order to adopt appropriate measures in reducing the violence. No doubt that sexual desire satisfaction motivation may vary depending on the characteristics of the offender and the victim and even the type of society.

## 2 First discussion: introduction

### 2.1 Criminalization

The criminalization is the process of prohibition and or permission of an act by the legislator based on main social norms and beliefs, relying on acceptable theoretical foundations with stipulated criminal sanctions. Accordingly, Criminalization is a second order science based on other disciplines including law philosophy, political philosophy and social sciences. Criminalization is classified into three categories:

- Legislative criminalization, which is the main and most logical type and proceeded by the universal principles of criminal law and punishment of crimes.
- Judicial criminalization, which is recognized both overt and covert. Its overt form is that of the votes by the General Board of the Supreme Court's precedents; and the covert form is the personal criminal justice by judges that is conducted in the face of uncertainty and brevity of law and to avoid rigid frameworks and rules sometimes considered to the service of the community.
- Criminalization accredited by fatwas and jurisprudence resources, which is based on Article 167 of the Constitution emphasized by article 214 of the Criminal Procedure Code (Tohidí and Fazli, 2014).

### 2.2 Sex crimes rules

Sex crimes in Iran rules are derived from the Shia jurisprudence and are discussible in two categories of "hodod" and "tazirat". In other words, the criminalization of sexual crimes in Iran should be traced in jurisprudence law. In the crime sections the crimes against chastity under the titles of adultery in Article 63 of the Penal Code, sodomy in Article 108 of the Penal Code, panderism in Article 135 of the Penal Code and false accusation of adultery or sodomy in Article 139 of the Penal Code have discussed the category with the specified sanctions or punishment based on the quantity and quality crime based on the Sharia law.

The legislator should criminalize sexual offenses to prevent crime in the community. Iran and the United Kingdom legislators and theorists are trying to take necessary actions for the prevention of sexual offenses.

Europe criminal law on sexual offenses has faced major changes of vision in the recent decades. For example, the new Labour government, a few years ago, provided a bill entitled Justice for All proposing that that the victims must be at the center of the criminal justice system. Sexual crimes include a wide range of decriminalization in terms of legislative changes, as well as crime and sexual deviancy as "sexual assault" (or even incest and adultery with minors) have been reduced and by expanding the decriminalization of these issues, prevention is limited to the fight against sexual violence in the form of legal. Provisions relating to the criminalization of sexual behavior in the United Kingdom mainly amended by the Sexual Offences Act, passed in 2003. Sexual assault is the sex crime that has attracted public attention much more than other sexual crimes in the penal system in the United Kingdom with the maximum penalty of life imprisonment.

## 3 Causes of sexual crimes

### 3.1 Personal factors (direct)

The personal factors include factors related to the criminal and considered an expression of personality traits and character with direct impact on their tendency towards the crime. These factors can include two sets of psychiatric factors and sexual dysfunction.

#### 3.1.1 Psychiatric disorders

Quest for sex with violence and without regard to the needs and the rejection by the partner is affected by aggressive and unbalanced personality. All those who have a brief overview on the perpetrators of rape confirmed the presence of some rare abnormal behaviors and personality traits. Even a glimpse into the ways of the invaders and their degrading behavior or injuries inflicted and killings after the rape sometimes we hear in the media, it concludes that they are people with personality problems and mental disorders (Razmsaz, 2013; Ahmadi, 2005).

#### 3.1.2 Sexual dysfunction

Human sexual behavior and tendencies so complicated and interwoven with characters that is with a major impact on psychological characteristics and relationships with others. These issues have occupied the minds of many thinkers, especially psychiatrists and psychologists to find the hidden aspects of human sexual desires and behaviors and have been pioneered by Freud. There is no precise definition of sexual dysfunction and researchers classify and describe some dysfunctions directly. For example sexual dysfunction is classified into three categories: Trans sexualism disorder, diffuse sexual dysfunction and sexual dysfunction (Owhadi, 2001).

According to psychiatrists transsexual people experience a gender identity that is inconsistent with, or not culturally

associated with, their assigned sex, and desire to permanently transition to the gender with which they identify.

### 3.2 Social and cultural factors

Today, no one denies the effective and highlighted role of the social environment and communication on the crimes. Durkheim finds the causes of all abnormal behaviors in the social environment, and some as Lakasani because went to extreme in this regard so that they say "All people of the world are guilty with the exception of criminals" (Gozón, 1995). Cohen and Ahlin believe that crime is a certain form of collective solutions adopted by the lower class that arises from frustration. According to these two sociologists there are specific types of offenders entitled sociologist contentious group that commit rape as a tool for establishing their social status.

### 4 Prevention

The term prevention literally means to prevent, deter them, and take precautions to prevent bad and unwanted events (Sadeghi, 2013). Although there are ample definition and classification of prevention by experts in criminology, but in a nutshell it can be said that crime prevention is to avoid going to crime and disorder commitment (Gozón 1995).

### 5 The second discussion: Foundations and the reasons behind criminalization of sexual behavior in Iranian and the UK criminal law

According to Iranian criminal law, satisfaction or dissatisfaction do not have a role in the criminal nature of these deviations, while reviewing the fundamentals of criminalization of sexual behavior in other countries, especially the United Kingdom in the pages ahead show that there is a big difference in this regard between Iran and the United Kingdom. In fact, criminalization of sexual behavior in the majority of countries with different traditions and beliefs is of the founding principles of the criminal policy of the government. The legislator always criminalize a number of behaviors keeping in mind the principles and reasons. However, the legislator usually not be stipulate the principles and reasons, and the legislated rule does not explicitly points to the criminalization foundations. In other words, criminal law experts are constantly investigating the fact that what behaviors should be considered criminal and what behaviors should be excluded. Accordingly, in the criminalization of acts incompatible with chastity, all penal systems, including Iran and the UK do not act in uniform manners, for example ,in many countries sodomy and adultery, which is done by mutual consent, is decriminalized; however, the vast majority of these countries, have criminalized rape in their laws, and respond strongly with various foundations, including the preservation of generations, human dignity, the principle of patriarchal rule, and finally, the principle of legal ethicist.

It seems that all western legal systems are making efforts to modify abnormal behaviors as one of its main objectives in the criminalization of these behaviors.

Iran and The UK criminal law have discussed specific punishment measures. So officials have to adopt policies and practices to prevent the occurrence of these crimes and prevent corruption in the society. Agencies and other institutions of society should cooperate with the government for crime prevention. All members of the community are responsible in the prevention with more effective measures to prevent sexual offense unlike the criminal measures stipulated by the legislator. If social communities fail to adopt appropriate measures then the legislator should criminalize sexual offenses and act to prevent crime in the community.

The UK criminal law in relation to sexual offenses focuses on the accused unaccepted behavior, not the physical damage that may be caused. In addition, although many sex crimes can cause psychological harm to the victim (and this may be the main reason) but is not required to prove the damage. The charged is responsible in case of committing a forbidden action (material

element), with the capabilities necessary to blame (mental element. Moreover, the regulations prior to Sexual Offences Act 2003, was somewhat naive and incoherent. Mainly there was only two crime of sexual assault against adults, which included sexual assault (with a maximum punishment of life imprisonment) and a gross invasion (with a maximum penalty of ten years' imprisonment).

The survey of the basis of sexual behavior criminalizing in the UK criminal law implies that contrary to penal policy based on jurisprudence and Sharia law to criminalize sexual behavior by the Iranian government, the UK government has adopted a different solution or alternative basis for the criminalization based on liberal politics (Mosavati Azar, 1995).

In the UK criminal law, the first priority for the criminalization of sexual behavior is primarily that the sexual relationship must be without consent or occurred on a child under 12. Proof of this is very difficult, because defendants often claim that she was satisfied, and the discovery of the issue in court, negatively or positively, can be very difficult.

### 6 The third discussion: Strategies to prevent the sexual crimes

Prevention of crime in the world today is as an activity must comply with series of laws and regulations that is a factor in achieving the desired goals and to do that in good faith or devotion is not sufficient. Prevention is in fact part of the responsibilities of all local and state institutions and especially the councils of citizens in the neighborhoods can play an important role in the regulation of the prevention of crime in their individual and collective levels. The following crime prevention strategies can be used:

- 1) Inform public about crime and criminal practices and techniques that are used through the mass media (How to steal a car in remote places or roam criminals and thieves in the neighborhood in order to monitor vacant homes for burglary)
- 2) Forecast projects and group projects
- 3) Provide specific age groups with training at schools, universities and the neighborhood mosques (for example training youth about the effects of drugs and psychedelic effects on the mind and body).
- 4) Changes the lives of people living in those neighborhoods (widening the streets and increasing the amount of light in the environment)
- 5) Encourage and assist private companies for the manufacture and supply of safety equipment at more affordable prices
- 6) Anticipate ways to expose the hidden activities that provide context for offense;

So far, we got familiar with the principles of criminalization of sex crimes in Iran and the UK and figured out that the principle or rule of losses is the issue in Iran criminal law and consent of any sex offender's acquittal would be ineffectual in Iran penal system and sexual relationship outside the marriage bond itself bears the title of crime. Unlike the criminal policy of the UK, that only action in the absence of the victim consent is a crime. But despite these differences, both countries adopted measures in the criminalization of sexual behavior somewhat with different reasons and motives.

### 7 Conclusion

We, given research conducted in the prevention of sexual offenses in the criminal policy of Iran and the UK, realized that although the root causes and the criminalization of sexual behavior in the two criminal systems looks somewhat different, always the same solutions can be provided to prevent this crime. Sexual behavior defined in Iranian law is somewhat different from sexual crime in the penal system of the UK, but the preventive measures , including situational prevention where it is believed the offense was predictable and regardless of who

committed and what was affected, the crime can be controlled by reducing opportunities is the same in both penal system. I think, the criminalization of sexual behavior in Iran is more severe with strict sanction enforcement compared to that of the UK only because of the root cause of religious jurisprudence in Iranian law and a ban on having sex without parity interest.

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## DETERMINING RELATIONSHIP BETWEEN LMX LEADERSHIP STYLE ON THE QUALITY OF CRISIS MANAGEMENT

<sup>a</sup>SEYEDEH MARYAM JAFARI GAHRAZ, <sup>b</sup>SEYED ABDOLLAH SAJJADI JAGHARGH

<sup>a</sup>*Department of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran*

<sup>b</sup>*Assistant Professor, Department of Management and Economics, Science and Research Branch, Islamic Azad University, Tehran, Iran*

Email: <sup>a</sup> *m.jafari@iseikco.com*, <sup>b</sup> *Asadjady@yahoo.com*

**Abstract.** The study aimed to explaining the relationship between LMX leadership styles on the quality of crisis management in the Iran Khodro Industrial Services Engineering company. The study population consisted of employees of Iran Khodro Industrial Services Engineering company and data collection tools to assess leader-member relationship was Maslyn questionnaire, which consists of 4 dimensions of loyalty, influence, professional respect and participation. The results of this study showed that conceptual model of relationship between leaders-member and its four dimensions on the quality of crisis management with the fit data and 50% of the variance crisis management by leadership style is explained. A relationship based on loyalty, respect, influence and empathic participation can improve the quality of crisis management, particularly in the preparation stage.

**Keywords:** Leadership style, leader -member relationship, crisis management

### 1 Introduction

Crises are part of the business climate and remove all the crises that threaten the organization is impossible.

On the other hand, adapting to the situation, take advantage of the competitive environment and economic mechanisms, need more tools to take advantage of the opportunities created and this is what is referred to as strategic management. When faced with crisis, organizations spend much time and money and many people acquire different experiences. Crisis management to adapt to change and transition from problems to fix the damage caused by certain new environment requires specific features generally managers to respond to them are facing many problems (Darwish Zadeh and Akhavan, 2011). One of the most important attributes that can help leaders and managers in response to these changes the relations between managers and employees. Leader-Member exchange or LMX is system of elements and their relationships including the relationship of two members and consists of dependent behavioral patterns that two-way and interactional outcome sharing, environmental concepts, values, and directions created.

Leader-follower exchange approach that is relatively nature of contingency, relationship with any of his subordinates unique leader regarded and the exchanges and interactions between a leader and a subordinate that are called couples, is established. In the approach, managers with each of your employees behave based on different levels of social exchanges; they are not treated equally by all his subordinates (Rasuli and Shahae, 2009).

Leaders- member exchange theory is the presentation of a theoretical approach to understanding leadership in working condition. This theory can be due to focus on a dynamic relationship between leaders and subordinates distinguished from other theories of management (Hosseini et al., 2010). This leadership theory as a process, conceptualization, and its focus on the relationship between leaders with the member emphasizes on two-member communication process. This theory believes that leadership is an exchange process between the leader and his

members. The impact of sub follower on the leaders and their behavior, as much is leader's impact on the behavior of sub follower. According to this theory, leaders and followers develop couple's relationships that leaders behave differently people, it leading to the formation of two groups of followers - intimate and non-intimate group. The group is desirable for leader called intimate group, members of this group were considered leaders and a greater share of resources they received. In contrast to this advantage, the leaders expect the members of this group perform the functions beyond the scope of their official job descriptions (Leiden and Maslyn, 1998). According to the above cases, crisis management and leadership integrity is a member of both the scope of the research and the aim of this study understand "Does explanation of the relationship between leader-member (vertical relation model) effect on quality of crisis management of Iran Khodro Industrial Services Engineering Company?"

### 2 Theoretical foundation

According to the needs of mental, emotional individual or in general word, given the issues that emerges in relation to the others to arrive, including the principles and practices of human relations school of followers. This attitude has emphasized the importance of the human dimension members for other people and organizations considers necessary for an organization toward a common goal (Shojaee et al., 2004).

One of the factors influencing employee's satisfaction is their relationship with their direct manager. LMX approach emphasize on unique exchange relationship between director and employee and the case against the use of a specific style for all employees. Exchange relationship between director and employee can be good and poor quality or low quality (Rasuli and Shahae, 2009). Dimension of this approach includes loyalty, influence, professional respect and participation.

Crisis management is the process prevention of crisis or minimize its effects should the worst occur for the process planning and then look for ways to manage and resolve it (AMA, 2003). If you define crisis management as plan to control the crisis, four-step for planning crisis management should be conducted. First, we must predict tragic events, then the contingency plan should be set, so it should be formed and trained crisis management team and organization and finally have to complete applications, they will be implemented on a pilot basis and with practical exercises (Kritner, 2004). According to the literature, leader-member relations and crisis management in Iran are very low and the search was performed.

In Iran, there is not research on examining the relationship between leader-member on the quality of crisis management. Therefore, crisis management and consolidation of leader-member were two scope of the study, was to investigate the relationship between leader-member, four dimensions of loyalty, influence, professional respect and partnership and check the quality of crisis management of the four phases, including identifying the symptoms of the crisis, preparedness, response and recovery and learning was studied.

Based on this conceptual model was developed and is presented in Figure 1.

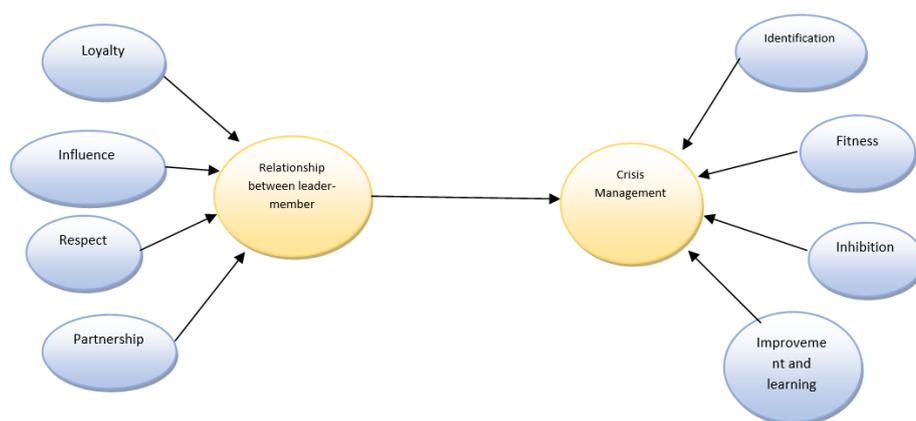


Figure 1 Conceptual Model Research

Based on the conceptual model, the study was designed to evaluate the following hypotheses:

- There is a relationship between leader-member and quality of crisis management in Iran Khodro Industrial services engineering company.
- There is a relationship between loyalty of leader-member and quality of crisis management in Iran Khodro Industrial services engineering company.
- There is a relationship between influence of leader-member and quality of crisis management in Iran Khodro Industrial services engineering company.
- There is a relationship between respect leader-member and quality of crisis management in Iran Khodro Industrial services engineering company.
- There is a relationship between partnership of leader-member and quality of crisis management in Iran Khodro Industrial services engineering company.

### 3 Research methodology

This study is descriptive and relational and in term of purpose is applied research. The population of this research managers and

employees in Iran Khodro Industrial Services Engineering Company. That number was 600. Cochran formula was used to determine the sample size of the research sample consisted of 280 people. In this study, to measure the relationship between the leaders – members, Maslyn questionnaire with 12 questions was used that has four components loyalty, influence, participation and professional respect. In order to measure the quality of crisis management using interviews with experts and professors of a questionnaire containing 26 questions in four dimensions detect the signs of crisis, preparedness, response and recovery and learning was designed and during the various stages of its reliability and validity were examined and approved. Cronbach's alpha coefficient for both scale and all its dimensions higher than 0.7 were obtained. Overall, 82.9% of the sample were male and 17.1% were women; 43.6% of the studied sample has an associate degree and lower, 43.6% Bachelor and 12.8% MA and PhD.

The average age of respondents in the sample is about 35 years, the average work experience of employees in the sample is 9.63; to analyze the data, SPSS-20, and AMOS-20 software was used.

### 4 Findings

To investigate the hypothesis, first correlation coefficient between leaders and members and different aspects as well as crisis management was examined and then the fitness of conceptual model was discussed.

Table 1. Pearson correlation coefficients between the variables

Pearson correlation coefficients					
Leadership relationship-member	Partnership	Respect	Effectiveness	Loyalty	
**0.53	**0.38	**0.44	**0.39	**0.46	Identification
**0.59	**0.48	**0.58	**0.32	**0.48	Fitness
**0.57	**0.44	**0.60	**0.30	**0.44	Inhibition
**0.52	**0.45	**0.52	**0.27	**0.40	Learning
**0.60	**0.48	**0.59	**0.35	**0.49	Crisis management

As Table 1 shows results, there is a significant relationship between loyalty of leader members with four dimension of the crisis management and with overall score of crisis management so that 24% of the variance of crisis management by the loyalty is explained ( $r=0.49$ ;  $0.05 > P$ ). Thus, the first hypothesis is confirmed.

Based on the results obtained in relation to the second hypothesis, influence of leader-member has a significant

relationship with the four dimensions of crisis management and with overall score of crisis management; so that 12% of the variance of crisis management by influence is explained ( $r=0.35$ ;  $0.05 > P$ ).

The results of third hypothesis showed that there are significant correlations between the total score of crisis management and respect as well as all its aspects and 35% of the variance of crisis management by respect is explained ( $r=0.59$ ;  $0.05 > P$ ).

Finally, the results of fourth hypothesis showed that participation leader-member with four dimensions of crisis management and total scores of crisis management were significantly correlated and 23% of the variance of crisis management by the participation is explained ( $r=0.48$ ;  $0.05 > P$ ).

After examining the correlation between different aspects of the relationship between the leaders-member and crisis management, in order to investigate the simultaneous role of variables of structural equation modeling was used. Figure 2 shows the results of the relationships in the conceptual model.

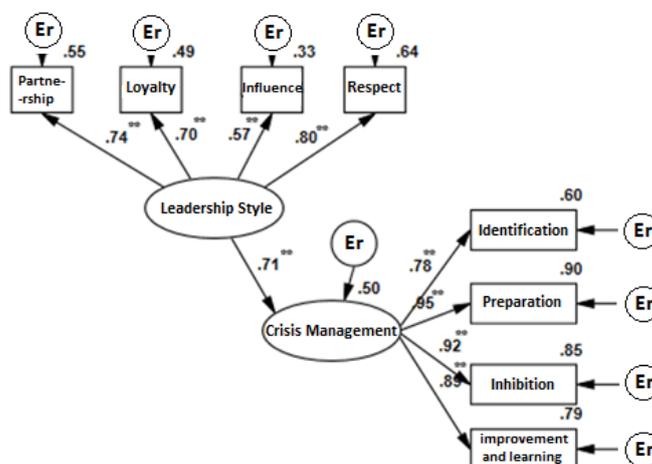


Figure 2 The relationship between leadership style and crisis management \* Coefficients that are significant at alpha level of between 0.01 to 0.05; \*\* coefficients that are significant at the alpha level less than 0.01

As has been shown in Figure 2, 50% of the variance of latent crisis management variable through leadership style is explained ( $r=0.71$ ;  $0.01 > P$ ). Also, based on the results of Figure 3, among the components of crisis management, leadership styles has

highest indirect relation level with readiness ( $0.95 \times 0.71=0.67$ ) and the lowest level of correlation had with the identification ( $0.78 \times 0.71=0.55$ ). Table 2 shows result of the calculation of fitness model index in Figure 2.

Table 2 Abstract indicators fitted to the model presented in Figure 2

	absolute fit index					Comparative fit indices					parsimony fit index	
	Chi-square/df	sig	SRMR	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA	PCLOSE
Allowed	<5	$0.05 \geq$	$0.08 \leq$	$0.90 \geq$	$0.90 \geq$	$0.90 \geq$	$0.90 \geq$	$0.90 \geq$	$0.90 \geq$	$0.90 \geq$	$0.08 \leq$	$0.05 <$
Model 2	2.61	0.001	0.05	0.91	0.84	0.94	0.91	0.96	0.94	0.96	0.11	0.001
Model 3	1.41	0.12	0.03	0.96	0.91	0.97	0.95	0.99	0.99	0.99	0.05	0.40

The results in table 2 show there have been significant levels of difference between the conceptual model with the relationship model based on the data collected ( $0.05 > P$ ).

The RMSEA value outside the limit ( $0.08 < RMSEA$ ) and indicate the amount PCLOSE that the amount has a significant difference with allowance limit in operation ( $0.05 > P$ ).

However, other indicators have generally are indicative of the fitted model:  $0.08 > SRMR$ ;  $0.90 < CFI$ ;  $0.90 < NFI$ ;  $0.90 < TLI$ ;  $0.90 < RFI$ . To improve the fit model, the proposed measures of

AMOS software to improve conceptual model calculated and the index based on the possibility theory of relationships, were included in the model. Table 2 shows the results of this calculation. According to proposed indicators, among components of leadership style and effectiveness of two components loyalty there is a significant area of overlap with together. In addition, a latent variable factor beyond the influence of leadership style, the only meaningful relationship with one of the aspects of crisis management by name has been identified. Figure 3 show the results of the modified model based on these proposals. As Table 3 show results of modified model of better fitness than Model 2.

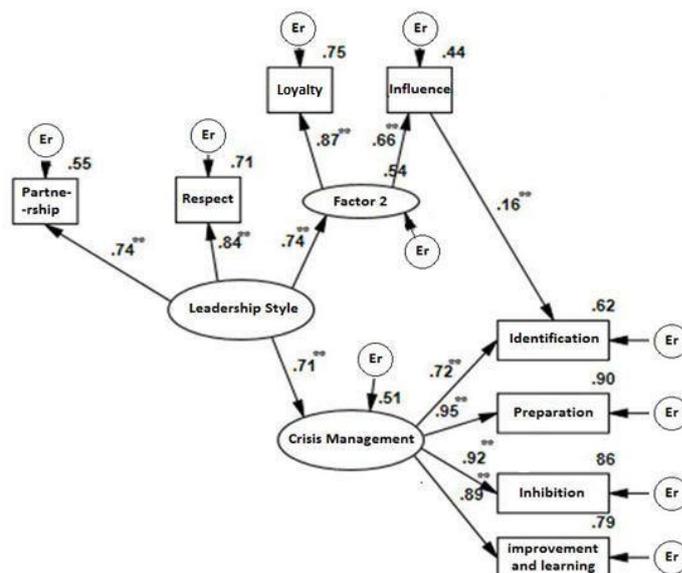


Figure 3 Modification of the relationship between leadership style and crisis management. \* Coefficients are significant at the alpha level of between 0.01 to 0.05; \*\*:

Coefficients that is significant at the alpha level less than 0.01.

As Figure 3 shows, a second level of influence in connection with the two components and loyalty have an impact of 44% of the variance ( $r=0.66$ ) and 75% of the variance loyalty ( $r=0.87$ ). Latent variable leadership style could explain 54 percent of the variance in latent crisis management ( $r=0.74$ ). On the other hand, also could influence the measured variable latent factors beyond identifying leadership styles could predict 3% of the variance ( $r=0.16$ ). Because of this relationship beyond the relationship between leadership and management style latent crisis and with regard to the least role that effective leadership styles among other components latent factor has played at least role in leadership styles. It seems the relationship between effectiveness and identify the association between leadership style is not unique.

## 5 Discussion and conclusion

This study aimed to investigate the role of leader-member relationship style and quality of crisis management in the Iran Khodro Industrial Services Engineering Company was done. The results of the research showed that among the four components of crisis management, adherence to the highest correlation with the level of readiness ( $r=0.48$ ), then identified ( $r=0.46$ ), inhibition ( $r=0.44$ ), and the lowest level of relationship by learning ( $r=0.40$ ) showed. As a result, loyalty 24 percent increase in improving latent variable of crisis management explained ( $r=0.49$ ). The results show loyalty with all four components of crisis management showed a significant correlation ( $0.40 < r, 0.05 > p$ ). This suggests that the role of leader-follower interactions can establish a pattern of loyalty in crisis management purposes is carried out. Factors influencing the highest correlation with the level of detection ( $r=0.39$ ), then readiness ( $r=0.32$ ), inhibition ( $r=0.30$ ), and the lowest level of relationship by learning ( $r=0.27$ ).

As a result, 12% increase in improving latent variable of crisis management explained ( $r=0.34$ ). The results of this study indicate that the most positively influential crisis management and leader-member influential role in predicting been identified. This means the effect of gravity and leader-member influencing factors and barriers crisis. Due to the relatively high correlation between the components of crisis management seems the communication path- to identify the most impact on the relationship between leadership effectiveness have complied with the other components of crisis management.

Dimension of respect of the aspects of leader-member relationship, the highest correlation with the level of inhibition ( $r=0.60$ ), then readiness ( $r=0.58$ ), learning ( $r=0.52$ ), and the lowest level of correlation with the identification ( $r=0.44$ ) showed. As a result, 38 percent increase in improving latent variable of crisis management explained ( $r=0.62$ ). The results of study show a positive relationship respect and leader - member with crisis management.

So leaders who treat their employees with respect to the critical path to self-actualization potential and create positive changes in their employees created and developed.

Finally, the last component of crisis management, partnership has highest correlation level with readiness ( $r=0.48$ ), then learning ( $r=0.45$ ), inhibition ( $r=0.44$ ), and the lowest level of correlation with the identification ( $r=0.38$ ) showed. As a result, participation 25 percent increase in improving latent variable of crisis management explained ( $r=0.50$ ).

The results of this study also showed a positive relationship participation of the leader-member and crisis management and leaders who have employees who are currently beyond the commitments in advance organizational objectives with managers and leaders participate, who is more responsible than to deal with crises and preparation for crisis management will be more efficient and more. The overall score for the leadership style between the components of crisis management had highest level of correlation with readiness ( $r=0.59$ ), inhibition ( $r=0.57$ ), identification ( $r=0.53$ ), and learning ( $r=0.52$ ) showed. The result of this relationship led to the leadership style 50 percent increase in improving latent variable of crisis management explained ( $r=0.71$ ). Among the components of leadership styles in position with respect to the sequence 0.62 ( $R^2=0.38$ ), in partnership with 0.50 ( $R^2=0.25$ ), loyalty to 0.49 ( $R^2=0.25$ ), and influential 0.34 ( $R^2=0.12$ ), the highest to the lowest level of crisis management showed correlation with latent variables.

The results of study show a positive relationship between total score of efficient style of leader-member and crisis management. Leadership style is the most important determinants of strategic management in the sense that improve leadership competencies through improving the quality and quantity planners and strategic management challenges that lie ahead, can be important for the success of the organization in dealing effectively with the crisis. On the other hand, as the results of this study showed that the most effective leadership style of crisis management,

predominantly through their influence on improving employees' perceptions of readiness and inhibition of organization than predicted and unpredicted crises. This can mean that when the recovery fails to gain leadership style and organizational readiness does not end in disaster management and it cannot expect favorable changes in other components of the organization.

Finally, based on the results of this study, it is recommended to use in devising educational programs based interventions to improve management style and leadership style special emphasis in the curriculum done. Based on the results of this research, interventions based on leadership style, to change the perceptions of respect and loyalty cannot expect much improvement in the indicators of crisis management.

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## JURISPRUDENTIAL FUNCTION OF INTERNATIONAL COURT OF JUSTICE AND ITS CONTRIBUTION IN DEVELOPMENT OF INTERNATIONAL LAW

<sup>3</sup>JABER SEYVANIZAD

<sup>4</sup>*Young Researchers and Elite Club, Urmia Branch, Islamic Azad University, Urmia, Iran.*

*PH.D.C of international law & Corresponding Author*

*Email: <sup>a</sup>sayvania@ymail.com*

**Abstract.** The necessities derived from modern era require ICJ to harmonize its law of evidence proving claims with the last scientific gains concerning the fact-finding process. Such a legal harmonization can play a major role in development of international law boundaries and subsequently can evolve the mechanisms of evidence proving before the international tribunals. Through the descriptive method, this article examines some emerging aspects of abovementioned process and presents some new results which are necessarily in association with tenets of rules governing on law of evidence. Finally, this paper argues that development in jurisprudential processes of judicial tribunals generally and ICJ specifically is inevitable, but the centrality of State sovereignty still remains and underlies this development.

**Keywords:** Development of International Law, Jurisprudence, International Court of Justice, Law of Evidence

### 1 Introduction

Due to various reasons, addressing issues related to the Jurisprudence of International Court of Justice has increasingly become important. In recent years, because of growing number of international disputes -specifically *Matter of Fact*- on one hand and posing disputes related to the highly technical issues on the other, the importance of issues concerning the Court's jurisprudence has been doubled. With regard to the unique peculiarities of international adjudication, the policy of international tribunals is usually based on the investing on non-controversial evidence, instead of addressing parties' controversial facts and evidence. Similar to Permanent Court of International Justice (Manely, 1992), ICJ has always tried to build his judgements based on the facts which are agreed by litigants (Valencia-Ospina, 1999). However in adjudications within national courts, the judicial authorities usually action more actively concerning facts discovery. However, this policy of Court has not been always practical and in some cases that litigants have had a remarkable disagreements concerning the facts and evidence, Court has encountered serious challenges. In Court history, ICJ has faced some cases in which the determination of dispute's fact and evidence was primarily needed or basically the fact discovery has been posed. In this respect, both cases can be referred, including cases concerning "*Military and Paramilitary activities in and against Nicaragua*" (1986) and "*Corfu Channel*" (1949). Increasing wave of States tendencies in resorting to ICJ contentious jurisdiction for settlement of disputes- especially among the developing countries- in recent years, it is explicitly observed that, the number of international disputes in which decision making concerning *matter of fact* is considered prior to application of governing rule on *matter of law* have been remarkably increased. Such a transformation necessarily led to growing rate of attention paying to law of evidence before the Court. In this respect some cases can be referred, including Oil Platforms (Islamic Republic of Iran v. United States of America), 2003; Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda), 2005 and Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro), 2007. In this regard, cases concerning territorial issues like the case concerning (2007) Maritime Delimitation and Territorial Questions between Qatar and Bahrain can be added to the abovementioned cases as well, in which the role of evidence as the basis of possession proving is notably significant, so that in proceeding process great deal of evidence is provided.

This article tries to indicate some developing dimensions of judicial jurisprudence through the study of ICJ proceeding

procedures. To achieve this purpose, addressing the collection of methods and tools governing on fact-finding process has been put on the agenda. The current article attempts to respond this question that how Court has applied the rules governing on law of evidence in its proceedings towards States disputes. Since only States are capable to litigate before the Court, a large extent of attention has been dedicated to the element of States sovereignty. On the other words, that part of developing mechanisms are investigated that are in association with States behavior. To this end, referring to some primary foundations as the starting points of discussion will be inevitable. There should be a distinction between two concepts of legislation and the development of international law. Article 24 of the Statute of the International Law Commission refers to the role of government policy in the development of international law as well as other factors and variables such as international courts decisions, especially the International Court of Justice opinion, as positive reasons or evidences of the existence of a rule of customary international law. In other words, International Court attempts to extract and identify international law through its decisions. Controversies exist among the international legal experts in this regard. Broadly speaking, there have been two approaches in relation to this issue.

#### 1.1 Traditional Approach

According to this approach, Article 38 of the Statute of the International Court of Justice includes the most recognized sources of international law. It refers to acts and not the creation of law. Article 38 of the Statute is faced some restrictions regarding the judicial decisions as a subsidiary source of international law. First, judicial decisions along with the "teachings of prominent writers of different nations" enjoy the subdominant feature. Accordingly, judicial decisions' duty is a tool which enables International Court to identify and apply the rules of customary international law. Secondly, it seems that this article allusion to Article 59 of the Statute, which is at the end of the 1 (d) of Article 38, eliminated the possibility of resorting to the doctrine of jurisprudence in international law. Therefore, judicial decisions have no value genuinely. However, as will be shown, there is no such restriction in practice.

#### 1.2 Realistic Approach

According to this approach, one cannot deny that jurisprudence of the International Court of Justice is recognized as one of the sources of international law in practice. Side views of the Court on the interpretation of the rules are accepted as the best available understanding base of international law. They are also used as certain reasons. This issue has been accepted not only by writers, but also by governments and international courts. One of the trends in international investigations is that governments refer to previous judgments of the Court in order to prove their claims. In fact, they do not have any doubt about the validity. Governments may object to the issue in terms of lack of applicability of past decisions and not the lack of credibility. Articles 38 and 59 have never been cited. The other side claim has not been rejected. Fitzmaurice (2005) stated that, over time, court decisions gain value and credit which separate opinions of dissenting judges do not have it. Lauterpacht (1966) also cites several reasons for the court referring to his previous decisions. He states that previous decisions of the Court are the factor of stability which affects future decisions in terms of legal and practical experience. These decisions are regarded to be the reason for what the court considers as law. It will be a reliable statistics for the future position of the Court. Therefore, for practical reasons, these decisions show what international law is. In fact, they are largely similar to legal resources which have been mentioned in the first three paragraph of Article 38. In terms of form, they may only be considered as a subordinated instrument to determine the sources of law. However, the effect is the same (Ibid). The Court is also aware of the effects of its

decisions beyond the parties. In the case of the Aegean Sea (1978) continental shelf, the Court stated that, however, under Article 59 of the Statute, court decisions have no binding effect beyond the parties and they are considered only in that specific case. Obviously, any comment of the Court in the case of 1928 law will also have consequences with respect to relations with other governments, with the exception of Greece and Turkey.

In the case of "Anglo-Iranian Oil Company", Alvarez also pointed to the Court's role in the development of international law. According to him, if the statute of the Court wants to limit his authority to the resolution of conflicts, the states will state it clearly. In that case, Court was considered merely the Court of International Arbitration, but the current Court is a Court of Justice. Given the dynamicity of international life, it has a dual role of rule declaration and development of rights. The first task is to settle disputes between states, as well as protecting the rights of the states in accordance with the Law of Nations. With regard to the second task of rights development, these tasks include deciding on existing rights, adjusting them, creating new concepts if needed. The second special task is justified by the dynamic character of international life. Moreover, one cannot deny that the main sources of international law and judicial decisions branches are completely separated. They are very complex and affect each other. In many cases, judicial decisions establish the compilation basis of treaties. For example, Court decision of 1951 in the case of fishing (explaining the fact that drawing straight lines is the criteria to determine the width of the territorial sea) and the North Sea Continental Shelf decision of 1969 affected the formulation of Law of the Sea. Basic concepts such as armed attack and legitimate defense have crystallized in court procedures (for example, the case of Nicaragua) (Ruda, 1991). Therefore, it can be stated that court decisions have a very important role in the development of international rights. In some cases, they determine and interpret other sources of international law as well. This is done in two ways. First, one of the tasks of the International Court of Justice is the identification of rules of customary international and their application toward the mentioned specific case. This task makes the court to identify a customary rule in the first step and introduce it. With this action, it can take part in the development of general international law. Secondly, in addition to international treaties and conventions, court may decide on the basis of general principles of international law.

In this case, to impose a general principle of law in a particular case, the Court will have to describe different aspects of the general legal principle. As a result, the scope of legal interpretation of that principle will be developed. This issue is more important especially when the Court is faced with the silence of the international treaties and customs.

## 2 Sources of Law of evidence Proving Claim in International Court of Justice

In this article, those sources of international law which are used by International Court of Justice in the course of judicial duties in connection with fact-finding and proving the claims will be investigated. In the domestic (Iranian) legal system, there are usually compiled codes which are employed by judicial institutions to play their roles. For example, Articles 194 to 294 of the Civil Procedure Code of the Islamic Republic of Iran specify the rules governing the proof of claim. In international law, there are no compiled codes which can be used by the International Court. Moreover, international investigations are not equal in terms of procedure code. This means that each investigation is subject to its own conditions and requirements. For example, international arbitrations are different from international judicial investigations. Each international investigation depends largely on litigants. Dispute parties also affect investigation issues. However, over time, it was seen that rules and regulations have been gradually formed in jurisprudence and international arbitration in connection with matters of procedure generally and in connection with fact-finding and proving the case specifically. Procedures of the

Permanent Court and the International Court are parts of these procedures. Generally, sources of evidence proving the disputes in the international investigation can be divided into two main groups of written sources and unwritten sources. The main written source is founding documents and, in other words, the Statute of the International Courts and their investigation rules. The provisions contained in this resource usually express the general principles. They assign the details determination to the International Court. In addition to these resources, International Court must consider other unwritten sources. The most important unwritten sources are general principles of law and international jurisprudence.

### 2.1 Written Sources:

The main written regulations related to rules of evidence proving the claim can be found in Statutes and investigation rules of the International Court of Justice. However, the court has created written sources in other forms. Civil judicial procedures and administrative guidelines of the Court are among them. All these sources will be introduced in the following.

#### 2.1.1 Principle Sources:

##### A. Statute of the International Court of Justice

The Statute of the International Court of Justice is the most important and most original document for duties of the Court. This Statute determines organizational issues, procedure and court powers. Broadly speaking, in the Statute, there are not many regulations related to the rules of evidence proving the claim. It contains Court general issues and power. However, the Statute is most important resource for decision-making on matters. It is a mother document. Therefore, other resources should be interpreted with respect to the provisions of the Statute. The provisions of the Statute are broad and flexible (Hygt, 1987). With the division of the investigation procedure into two written and oral stages, the Statute regards the issues related to the Procedure Code such as rules of evidence proving the claim in two ways. Paragraph 5 of Article 43 has predicted the witnesses and experts hearings. In Article 44, the Court is allowed to visit the place to gain the reason. In a general prescription, Article 48 of the Statute has allowed the Court to issue some arrangements in order to handle the case. The court can decide on form and time of presentation of the arguments of each party. Moreover, this article authorizes the Court to make all the necessary arrangements related to finding the reason. Article 49 allows the Court to ask any document and explanation before court hearing of representatives. This Article specifies that, in case of failure, Court can formally consider the issue. Article 50 has made it possible to appoint an expert or expert group by the Court. Article 53 also specifies the conditions of the investigation in which one of the parties is absent. As it can be seen, Statute of the Court did not express significant provisions about rules of evidence proving the claim. This legislative gap regarding the proving issues such as standard proof of the claim and general issues can be seen more in the court.

#### 2.1.2 Secondary Sources:

##### A. International Judicial Practice:

Article 19 of the Rules of proceedings allows the Court to determine its "internal judicial practice" by notices. Under this Article, the court civil judicial procedures should be determined according to the Statute through declaration that will be adopted by the Court. Accordingly, the court has approved its civil judicial procedures on 5<sup>th</sup> of July 1968. On April 12, 1976, in another statement, it has modified its civil judicial procedures. The declaration has 10 articles. Prior to these two announcements, the court has regulated its civil judicial procedures in accordance to resolution of 20 February 1931 and amendment of 17 March 1936 of the Permanent Court. In the introduction of the Declaration of 1976, the Court states that if

the Court finds the circumstances so required, it is free under certain conditions to deviate the resolution.

In the rules approved, the way of handling the issue is not mentioned. There are just the regulations addressing the issues raised by a case. According to Article 1 of this Declaration, Court judges can hold meeting on the sidelines of hearings. They can exchange their information and inform each other about their possible questions in order to apply paragraph 3 of Article 61 of the Rules of Court proceedings.

#### *B. Practice Directions:*

With regard to the increase of cases in the agenda of the International Criminal Court, the court has attempted to approve a set of rules known as "Practice Direction" in 2001 to solve practical problems in the course of investigations. Gradually, the Court has attempted to complete this set. Court added other rules to this set for the last time on December 13, 2006. These rules have been developed with the aim to accelerate and facilitate the investigations of the Court. In connection with the legal basis for issuing these instructions, there is no clear conclusion. These rules can be justified according to the Court authority in Article 30 of the Statute. They can be considered as part of the Court's inherent powers. Accordingly, it can be noted that the governments of both sides are required to follow these rules. Among 12 practice directions issued by the Court, in some cases, there are some of the issues related to evidence and proof of the claim. In practice direction 1, it was stated that special agreement has no effect on the proof of claim. The practice direction number 2 asks the litigants to bring a summary of their arguments. The practice direction number 3 asks the litigants to bring a limited number of documents. In practice direction 6, recalling the paragraph 1 of Article 60 of the rules of proceedings, it was stated that the oral hearing will be limited only to complain. The reason for this is that the competence and capability of lawsuit is the issue which should be investigated by the court itself. There is no need to hear the arguments of both sides. Practice direction number 9 implies the issue related to the documents registration with delay. This issue exists in paragraphs 1 and 2 of Article 56 of the Court proceeding rules as well. In connection with the registration of these documents, the Court has stated some restrictions. Practice direction No. 9 has determined the method of Implementation of paragraph 4 of Article 56 of the proceeding rules on the basis of oral hearings and documents which were not provided according to Article 43 of the Statute. Practice direction number 11 implies the limitations of telling the issue related to the issuance of temporary safeguarding in hearings. It can be stated that the Court has sought further restrictions to provide evidence and documents by governments. As it can be seen, in International Court written sources, there are not many minor issues related to rules of evidence proving the claim. Only the general issues were highlighted. The main topics covered by these written sources are the evidence issues and the method to provide it. Basically, a lot of issues were not considered. For example, in these regulations, there is no article about proving, standard of proving or judicial value of any of the evidence. As will be shown in other parts of the research, the court has investigated such issues relying on other unwritten sources.

## **2.2 Unwritten Sources:**

In addition to written sources, International Court of Justice uses other sources in investigation of issues related to rules of evidence proving the crime. The general principles of international law and international judicial procedure are among these sources.

### **2.2.1 General Principles of International law:**

Paragraph (c) of Article 38 of the Statute of the Court implies "the general principles of law recognized by civilized nations". During the investigation of claims, the Court uses this resource. However, topics have been proposed concerning the scope and

meaning (Bin Cheng, 1953, p. 536). Placing the general principles of law as a source of international law in Article 38 of the Statute of the Court has been done to "complete the international legal system". International law is more uncertain compared to domestic law. Most international lawyers agree that the purpose of insertion of the general principles of law is to prevent the legal gap. In practice, Court pays no attention to the "civilized nations". It can be stated that, in the view of the Court, all countries are civilized nations. These principles do not belong to any specific legal system. They are common in all systems. Bin Chang, in one of the most famous written works related to the general principles of law, considers three special tasks for this legal source. First, the general principles of law are the source of many legal rules which express these principles. Second, the general principles of law are considered to be the guidance of legal orders which inspire the interpretation and implementation of legal rules. Third, in the absence of law, the facts of the case are applied. In legal systems, such as international law in which the written rules are limited, the third special task of the general legal principles is very important. It plays an important part in defining the legal relations between states (Ibid., P. 390). Permanent Court and International court of Justice pay attention to the general legal principles contained in Article 38 of the Statute of the Court. Permanent Court never mentioned this Article. It always spoke about it in a vague and ambiguous form. In some cases, Permanent Court Citations can be classified in the principles of customary international law and the general principles of law of the paragraph (c) of Article 38 of the Statute. International Court pays attention to this resource in several cases explicitly, but it pays attention to this resource in a lot of cases without any citations. Although there was no hierarchy between sources of international law and the issues of contractual rights and customary law are paid much attention, international rights (international treaties and conventions) have a secondary character. However, in connection with the rules of evidence proving the claim, the general principles of law must be considered one of the main sources. In the case of "some German interests in Upper Church" when dealing with a matter of procedure, the Permanent Court put the general principles of law near the provisions of the Statute and Rules of Court proceedings.

### **2.2.2 International Jurisprudence:**

Observing Article 59, paragraph 1 (d) of Article 38 of the Statute, has introduced judicial decisions as incidental tools for setting the rules. In the past, justifying the use of previous judicial decisions (including the decisions of the Court) was very difficult. Today, their important position has been identified by the Court and writers. This regulation does not show the Court commitment to the doctrine of judicial procedures as it is in the common-law legal system. In the Statute of the Permanent Court, there is exactly the same regulation. However, this regulation does not prevent the court to use its previous findings in reaching its decisions. In any case, the existence of convincing reason of the Permanent Court can deviate from its previous practice. Accordingly, in many cases, the Permanent Court cited the principles of jurisdiction, procedure and substantive in its previous opinions. Hereby, the Permanent Court created the organized approaches in connection with many legal fields. In this regard, judicial decisions considered by the Court can be divided into three categories; the Permanent Court judicial procedure, Court procedure and procedures of other international courts. Among these cases, Court usually pays much attention to its judicial decisions and Permanent Court judicial procedure. It rarely refers to the decisions of other international courts.

#### *A. Jurisprudence of Other International Tribunals:*

In practice, the Court has no tendency to rely on judicial procedure of other international courts. A former employee of the Court claims that, in the Court, there are unwritten rules according to which Court should only refer to its judicial procedure. However, in some cases, the Court also refers to procedures of other courts. In addition to cases in which another

court decision forms the topic, Court on various occasions has referred to other international opinions. In some cases, in general, Court refers to them using some terms such as "procedures," "arbitration court decisions", "international decisions" or "international judicial procedures". In some cases, Court specifically referred to these ideas. 56. In the case of "land, sea and border's dispute", the Court Branch considered decision of 1917 of the Central American Court of Justice as a supplementary tool. On several occasions, the Court cited Alabama's arbitration vote of 1872 and Britain and France arbitration of 1977. Moreover, recently, in the case of the Convention on Genocide, the Court finds no shame in reference to the International Criminal Court of Yugoslavia. In the case, reference to Yugoslavia court decisions was conducted as the reason, not as a substantive judicial procedure. In one case, Yugoslavia court procedure was criticized.

#### *B. Jurisprudence of Permanent Court of International Justice:*

In connection with court reference to past decisions of the Permanent Court, there is no obstacle. The Court has repeatedly endorsed the Permanent Court judicial procedure. The court position is different from the Permanent Court's from an organizational perspective, but their judicial procedures are considered to be the same. The Court had considered the past decisions of the Permanent Court. In order to prevent confusion in appealing to the Permanent Court judicial procedure in San Francisco conference, it was tried to reinstate the numbering of the Statute of the Permanent Court. In this regard, in 1984, in the case of Nicaragua, the Court stated that "the primary concern of the Statute draft producers to maintain the integrity between the Court and the former Court as much as possible". Therefore, the Court made no distinction between its decisions and the Permanent Court's. In this regard, Winiarski (judge) has stated that "since starting to work, the Court had considered the continuity of tradition, judicial procedure and practices". Guerrero, the last chairman of the former Court, was the first chairman of the Court. With limited and insignificant reforms, the court has adopted the investigation rules of the former Court. Most importantly, without commitment to the Stare Decisis as a principle or rule, the court usually uses the former Court decisions. The result has been the remarkable unity of procedure which is an important factor in the development of international law. Accordingly, the Court repeatedly referred to the Permanent Court judicial procedure in its decisions. The main reason for this is the official successor of the Permanent Court.

#### *C. Jurisprudence of International Court of Justice:*

In reference to its previous decisions, the Court does not hesitate. These decisions have gradually become one of the main documents of the Court. In other words, in addition to various factors, the court paid attention to "Case-Law of the Court ". It has repeatedly cited this procedure. These decisions include pleading votes and advices. The results of an investigation show that the International Court of Justice referred to its previous decisions in 26 percent of cases between 1948 and 2002. For example, the court referred to its previous decisions more than 28 times only in 3 pages of advisory theory of 2004.

### **3 Principles Governing the Production, Admissibility and Evaluation of the Evidence in the International Court of Justice:**

In the knowledge of law, speaking about the reason is possible when an event leads the mind to reality. In other words, when the mind becomes able to reach the unknown through its findings, that sign is called reason whether an external event or a provision of law. Therefore, reason is sometimes used synonymously with cause and analogy. It was said that whatever persuade the spirit for the existence of truth is reason. In this way, the legal and judicial mean of proof is not taken away. Reason is the signs of the existence of truth which is disputed. In international investigations, dealing with reason is slightly different from internal law. In internal systems, there are certain

rules and regulations in connection with reason according to which the accepted formats of a document are defined as reason. In international investigations, there is no specific and precise definition for reason. "The flexibility of international investigations, the tendency for resistance against the special rules of applicable evidence in domestic legal systems makes the concept of reason much wider in international investigation (Kazzazi, 1996). The International Court, generally, reason is "the documents which are presented by one of the parties in accordance with his initiative or the Court request to prove a claimed fact or a claimed legal right". Another point is that the detailed categories in the domestic legal systems have no important role in International proceedings especially in claims of International Court of Justice. The term reason is referred to as all the tools and templates to prove a fact.

### **3.1 Principles Governing the Process of Fact-finding in International Court of Justice:**

Generally, two basic principles can be introduced in relation with offering, accepting and evaluating the evidence in International Court of Justice. They are also applicable in other international courts. First, unlike national courts, the government can provide any evidence or reason. In other words, there is no acceptable evidence and unacceptable evidence in particular sense (Principle of freedom of the parties in presenting the reason). Secondly, in acceptance and evaluation of the evidence presented, the Court enjoys an extensive freedom (Principle of Court freedom in reception and assessment of the reason). Gradually, in practice, it can be seen that all these principles have accepted restrictions as follows.

#### **3.1.1 The Parties Freedom to Produce Evidence:**

In all provisions of the Statute and rules of Court proceedings, the kind of evidence confirmed by the Court is not specified. The entire form of the evidence is assigned to the governments. Evidence may include the governments' official documents, national legislation, map, report of international organizations, the United Nations resolution, media and newspapers content and government officials and individuals' comments. International Court of Justice has interpreted the lake of the rules defined in the Statute in relation to the type and form of evidence in a way that a litigant can present any suitable reason within the time specified by the Court. In practice, the Court considers few restrictions for litigants, but, in some cases, it uses its power to reject the proposed reason (Duward V, 1999, p. 184).

#### **3.1.2 Court Freedom to Accept and Evaluate Evidence:**

The freedom of parties to provide evidence has the analogy of the freedom of court to accept and evaluate the evidence presented by parties. Court is not limited to any specific evidence system. It is considered to be the final authority to accept and evaluate the evidence. It has an extensive power. This does not mean that the Court can act arbitrarily. The Court has developed a set of rules which needs to be developed based on the mentioned issues and problems of evidence in some cases. When assessing the evidence, Court even acts freer compared to Admission stage. This is largely similar to the internal regulations of countries. This means that, to determine the burden of proof, it didn't determine any rule and criteria. It makes decision according to the conditions of each reason.

#### **4 Statements by Officials or Governmental Institutions:**

In the last decades, we have witnessed a revolution in the field of international trade tools. This has led to facilitate the access to high-ranking representatives of the government (Watts, 2004). These groups of data such as press conference, joint statement, Radio and TV interviews and lecture at the national, regional and international institutions are used to confirm the interpretations and claims. Referring to these statements is based on the fact that no one can benefit from his contradictory behavior toward others. In other words, a litigant cannot deny the truth after

confessing it (Estoppel Rule). Confession is a truth or a possible right. It is performed by an international document such as treaty, specific agreements and exchange of notes. It can be understood by representatives' behavior and speech. However, the only time to consider an issue as a confession is, first, when it is expressed explicitly. Secondly, confession should be voluntarily and unconditionally. Finally, referring to the confession must be made in accordance with the principle of good faith. The statements which don't have all or some of these elements cannot be referred according to the Estoppel rule. There are no definitive binding. They can have a degree of proving value (Bowett, 1957). Officials' statements are presented before the International Court of Justice in two ways. Statements made by government officials were referred before the dispute. This statement is used as a supporting reason for a fact. For example, an official involved in the conclusion of an international treaty states his understanding of the regulation of the treaty. In fact, he explains the inherent obligations of his country according to that treaty. In the International Court of Justice, appealing to government officials' statements is done with two goals. With referring to officials of other governments, governments are seeking to prove the facts which have been disputed. 73 In some cases, officials' statements are referred to as the reason of a commitment or an International right in terms of the sea area or territory. In this section, the Court Procedure will be investigated in relation to both groups.

#### 4.1 Political Officials' Statements as Proving Evidence of Fact or International Responsibility of States:

As stated, in some cases, the litigants refer to other side government. There are always these documents in Court. In fact, one of the common ways in Court is referring to such statements. However, the method of dealing with these evidences is not always the same. It depends on the conditions and circumstances of each case. The existence of such statements does not indicate a fact. It can be stated that there is a kind of direct relationship between the level of official and the degree of transparency of statements. In other words, the higher level of official causes clearer expression. The relationship between the expressed issue and administrative tasks of official is important. In the case of Minco, in order to prove its sovereignty over Minco, England referred to the French ambassador's note of June 12, 1820. At one of the tables, the letter of Maritime Minister is presented as English. France claimed that Britain cannot rely on this letter. First, it was presented during the negotiations between the parties. Secondly, negotiations did not lead to any agreement. However, the Court rejected the France argument. According to Court, this document is not an offer or a compromise during negotiations. This is the facts presented by the ambassador of France. Therefore, this statement should be considered as reason of official views. In the case of "military and paramilitary activities in and against Nicaragua", the value of officials' statements was presented. The Court stated that the contents of the Court include the statements of governments' representatives and high ranking officials. Some of the statements are presented at the formal institutions of government or a regional or international organization. Other comments were presented during press conferences or interviews which are reported by local and international press. The Court opinion is that such statements by senior political figures have special value if they are confirmed by the highest authority.

However, it is natural that such statements shall be treated with caution. Article 53 and other basis cannot justify the selective approach which ruins the conformance of court procedure and primary task of equality between the parties. The court should consider the situation according to which the statements have been express publicly. The Court cannot value them equally without considering the way of their presentation. The statements in a national or international official publication are not the same. It should be considered that whether the text of the official statements is in the native language of the speaker or it is based on the presented translation. It should be considered that whether these statements are presented through recorded official

correspondence or not. In some cases, the court should interpret these statements to ensure the confirmation of a fact. The Court also stated that "the court considers the statements to be very important". The Court should scrutinize the declaration. In this case, two witnesses were Nicaraguan officials.

The United States registered the testimony of the foreign minister. Court classified these evidences in "special groups" (ibid). In connection with the legal effects of such declarations, the Court stated some points. First, according to Court, such statements can be considered as the reason of the accuracy of the facts. Secondly, such statements indicate that these reasons are related to the government which its officials stated them. Thirdly, they can be considered as the reason for description of the facts. The Court considers the statements which are contrary to the views of the government very important (ibid). The important point stated by the court in this case is that the Court is not limited to contents that mentioned by litigants. In its path, in search of truth, the Court may consider the statements by representatives of the claim in international organizations and resolutions adopted or discussed in these organizations in the case of thematic relationship (ibid).

It is not clear that this conclusion of the Court has the general feature. In fact, in order to perform its task, the court acted upon the Article 53 of the Statute to ensure the reasonableness of the subject.

#### 5 Conclusions

Accepting the major role of Court in international community has increased the necessity of investigations on law of evidence, since equipping and resorting to the meticulous legal tools of fact-finding has provided better grounds for more active participation of ICJ in international community. Since ICJ is the only judicial arm of UN, has to comply with UN Charter and provisions. However, Court did not find itself independent of developing in some legal approaches that are directly in connection with justice realization. As a well-established principle, it can be stated that ICJ enjoys the remarkable level of authority in acceptance and assessing the provided evidence by litigants. However, realizing the Court authority must not be applied in a way that breach the fundamental principle of impartiality. Various parameters are effective in utilization of ICJ flexible policies in connection with methods and tools determination concerning fact-finding process. Surely, the principle of State sovereignty must be considered as the first cause of these policies acknowledgement. Furthermore, in recent years, Court has considered the issued instruments by international organization as confirming evidence of fact. Generally one of obvious instance of development in this ground is recognition of issued documents of UN organs as definitive evidence. Accordingly, it seems that some variations in Court approach concerning law of evidence are evident-especially compared to 70<sup>th</sup> decade-. The best way for promoting the Court Status is development of its fact-finding mechanisms. Consequently, the expansion of fact-finding mechanisms will face less objection compared to increasing the domain of Court compulsory jurisdiction or widen the statutory authorities.

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## OPINIO JURIS, DIALECTIC AND EVOLUTION

<sup>3</sup>JABER SEYVANIZAD

<sup>4</sup>*Young Researchers and Elite Club, Urmia Branch, Islamic Azad University, Urmia, Iran.*  
*PH.D.C of international law & Corresponding Author*

*Email: <sup>4</sup>sayvania@gmail.com*

**Abstract.** By means of the descriptive approach, this article tries to present a meticulous definition from the legal limits of *Opinio Juris*, assess its practical functions and analyze its nature as well. Clearly, about "legal belief" and its necessity in formation of a customary international law rule, there are extensive theoretical debates in scene of doctrines. However, this research firstly addresses the primaries of current theories concerning *opinio juris* and secondly presents some new dimensions in the realm of the judicial practice of International tribunals including ICJ, legal mechanisms indicating *opinio juris* and UN General Assembly acts as well as the other similar texts as the proving evidence of *opinio juris* to specify a legally acceptable framework for Genesis of international law.

**Keywords:** *Opinio Juris*, Legal belief, Voluntarism, Legal Mechanisms, Customary International Law

### 1 Introduction

One of the component elements of custom is the immaterial element which reflects the legal belief of the States in following a practice. Now the discovery of this legal belief can be obtained through different ways which are discussed here.

#### 1.1 Concept and Necessity

As the International Court of Justice states in the issues related to the continental shelf of the North Sea, in the formation of the customary rules, merely the existence of a "great" and "much unified" practice is not enough. Also the mentioned practice should be made in a way that it implies the recognition of legal rules or obligations. In this regard The Court explains that "two conditions should be met": first the existence of "an established practice" which contain the mentioned conditions and the other" belief in the fact that such practice is obligatory because of the existence of a legal law". So the objective element of custom- practice- as was mentioned in the previous part, should accompany with a " Subjective Element" which lies in the concept of the "legal belief derived from necessities" .the Latin equivalent which is usually used as an abbreviation:"*Opinio Juris*", "the legal belief of the states" or in others point of view "legal firm vote of the states". Such a concept dissociates the Wheat from the practice or Chaff. Thus the aforementioned practice should be drawn in the form of the following equation.

The general practice of the states + their legal belief = custom = International law; thus the existence of both objective and subjective elements of custom- meaning the general practice and legal belief- is necessary and unavoidable in the process-making of the legal rules. The first element defines what has occurred in the world and the second element prescribes the entering of the existing practice to the legal relations era (right and duty). Also it should be noted that in a way that practice which leads to the formation of the customary rule should be general, the legal belief needed in this process should also have the necessary generality. In other words, the legal belief should also be the product of belief or shared attitude of the states of the world or the international community as a whole. And this is different from the individual legal belief of the states.

Basically the states behavior lie in their relation to each other in different forms. Some of the behaviors may accompany a legal necessity and some others do not. If it is supposed that some behaviors become the custom, the condition is that what is legally necessary (what is necessary in accompany with the legal belief) should be divided from what is not necessary. Also there are some cases in which the behavior or in other words the practice which should be considered in the process- making of

customary rules, is ambiguous. (Idem). Also in these cases the legal belief of states have gained attention as a decisive concept especially from the international Court of Justice in order to explain the issue that why the practices of the mentioned states were not regarded in the process of custom-making. A behavior that does not clearly have the ability to refer to an existing or potential legal treaty or in other words does not fit in the framework of international legal relations, should not be paid attention in making or defining the existence of a general customary rule. One of these cases is the ambiguous refusal.

As mentioned previously, the actions which are based on the refusal have the capability that in a state of the necessary conditions, participate like the positive actions in the process of rule-making. One of these conditions is the necessary clearance for recognition of the action. One of these conditions is crystallization for the recognition of the act. But even if this comes true, theoretically and practically in most of the cases the refusals are ambiguous. And what can make clear these ambiguities are the legal beliefs of the States.

### 1.2 Nature

Especially the content of the discussion here is based on the question that in the formation process of custom, on which basis and why should the States continue doing that? By States. I mean the States which act in a systematic way and in a specific framework. In this regard, interpreters and the followers of different schools of thought, offer different explanations which can be divided into two groups: 1) The theory of the implied consent of the voluntarist, 2) Legal belief derived from the necessities.

#### 1.2.1 The Consent Theory of the Voluntarist

It has been considered by them from the Grotius time that what explicitly is in consent of the States is treaty and what is done implicitly is customary law. And this is rooted in Positivism. The advocates of the voluntarist theory of custom generally put their establishment on the basis that; since the states have government in the international relations area, they are not required to the obligations without their consent. In their idea, custom is regarded as a kind of implied treaty which the states have to follow if they have created that. Tunkin –one of the advocates of this theory- believes that "the basis of the customary rules, is the consistency of voluntarism of the countries or other subjects of the international law. The countries have the same right in the process of making international law rules and so the majority of them cannot make the rules which is necessary for the small numbers of countries to follow." (Arechaga, 1978) He considers accepting a point of view other than this, contradictory with the principal rules of international law. In law-although not in the world- the states have the same value. It is right that in reality this tendency of the powerful states to determine the actual influence on the process of the formation of international law, legally, the majority of the states cannot create rules for the others and consider them obligatory for them to follow.

Tonkin continues this is of great importance that the situation is different especially in the current international law system whose duty is to adjust the relations between the states belonging to different social system. Only a rule has the capability to convert into general international law rule which has been recognized in all of the legal systems by the States (Walden, 1977). But this theory has a wide range of objections. In this regard Kelsen (1970) believed that "the customary law is necessary to obey for the countries who have not participated in the customary law and the idea that this is just necessary to obey for the countries that have recognized the laws, is on the basis of an international norm." In fact, if this theory will become in to practice in a flexible and permanent way, its practical consequences will be out of mind.

Among the implied consent theorists, professor Strupp maintains interesting view. At first he believes that "agreement" is the only possible source in the international law, Provided that the states are equal to each other, and if there is not a great organization and no top authority to impose a rule on the states, accordingly we can conclude that the international law cannot exist without consent and consistent voluntarists of the states (Strupp, 1934). Strupp considers custom as implied consent that implied satisfaction and this is the interesting point of his view, and a state is necessary to obey the other states who have admitted the claim rule.

### 1.2.2 Legal Beliefs (opinio Juris) Derived from the Necessities

Literally this expression means a belief or legal belief derived from the necessities; The Latin equivalent of this shows that it has no roots in the Roman law and in the classical writings (idem, p262). It appears that the first person who has used this expression completely, is the 2011 *Genny* contract (D'amato, 1971). And this is in the domestic law framework although in Guggenheim idea, some parts of this idea or other ideas similar to that are found in the written history of Germany in the late eighteenth century (Mendelson, 2000). In the current discussion, generally the expression *Opinio Juris Sive neessitates* is interpreted as "belief in the legal nature and necessary related act (practice), or belief in its necessity". In other words, a state who makes a practice or procedure, believes that it does a kind of legal obligatory or it accepts a legal right that this obligation and right is also the manifestation of an objective rule and is based on the social life requirements and international life necessities.

Then, Kelsen (1967) believed that the customary law is necessary for the states that have not participated in the creation of customary rule-including new and also the active states- and this idea that the international law is just necessary for the countries that have recognized its law-as was stated by the voluntarists view- on the basis of a norm of international law.

## 2 The Recognition of a Customary Law with Relying on the Central Role of Legal Belief

As mentioned, the principal approach of the judicial practice in the recognition process of customary international law was based upon considering the practice and then recognize and discover its legal belief. In other words, the judicial practice has searched for the legal beliefs of the states by relying on the states' practices. But it is necessary to mention that taking such procedures could not be effective in all cases. The developments of the international communities under the influence of the humanistic concepts development and human rights suggest that in the recognition process of related necessary legal rules, another procedure should be taken. In such field, the mentioned process can never be established, because in most of the cases, at first, or there is no practice or what is available is contradictory and inconsistent. As a result and on this basis, International Court of Justice takes another trend in order to recognize the customary rules related to the humanistic considerations especially the humanitarian law i.e. takes another trend into consideration which is usually referred to as practice or modern attitude in the procedure of customary rules recognition.

### 2.1 Recognition of the Concept and Review of Some Theoretical Concepts

Although the process of the concept and the origin of its formation and recognition of the rule is a pre-determined process and is based upon a twofold system, is never done in a consistent and exact way. The judicial international practice shows that the judicial institutions have followed the mentioned practice when recognizing the rule without considering the pre-defined general system and because of taking into consideration the situation and also the judicial policy which is affected by variables such as shared regulation, justice and benefit and is different from situation to situation. And it is certainly due to the positive and great attribute of custom as a source of fluid with the high

adjustability capability which can continuously adjust itself to the transition of the international community. It appears that the source of such adjustment in judicial practice should be searched through the reaction of The International Court of Justice in recognition of Article 3 common to the four Geneva Conventions in the case of Nicaragua. Way of identifying the shared 3 article in the court's vote show that this judicial institution has excluded consideration of the states' practices at first and has considered a central and dominant role for the legal beliefs of the states in the recognition process and this procedure of the court became a pattern for other international judicial institutions who recognized in this way their customary rules in their own competence.

We should also mention that in the new procedure framework, the legal beliefs of the states are derived from Principles of Humanity and Dictates of the public Conscience and not from their practice. In other words, a belief which is not in the framework of the States voluntary and their national benefits but is influenced by most of the principles and natural valuable laws and ideas. In this field, the recognition of the legal belief (in relation to the necessity of a rule) is imagines upon those Principles of Humanity and Dictates of the public Conscience which undoubtedly are acceptable by all members of the international community and then its following is investigated in the state's practice. In this framework "The Court should convince that the existence of the rule in the legal beliefs of the states, is emphasized in their practice." The contradiction and conflict in the state's practice can undermine the laws based upon the practice, however, in the case of the laws dependent upon the humanistic and moral values-here modern customary law- the situation is different and the contradictory practices do not question its validity (Robert, 2003). And this can be a positive attribute for the new procedure in which the natures of the formed and recognized rules have the eternal stability and consistency.

Also sometimes the modern procedure has been compared with the interpretation of Hardt and Koskenniemi. The prescriptive interpretation of Hardt about law and the Utopian interpretation of Koskenniemi about law, on the basis of the first interpretation, laws are not resulted from considering the events and their descriptive because these facts imply what exists (the current practice). But in the light of this interpretation, the legal rules are always prescriptive and are wholly based upon what they should be (the practice which should exist). In the form of the second interpretation also law is based upon the principles which are not related to the states' benefits or their will; completely moral principles and different from their current reality which is imposed on the world.

### 2.2 Theoretical Primaries

In order to define the issue and explain it completely, it is needed in the following discussion, first the arguments about the basis of the international law should be submitted that the natural law doctrine is of great importance from the view point of the theoretical bases. Nature, wisdom, justice, morality and divine rights are all the concepts which are evolved from the natural law concepts. From the view point of the advocates of natural law doctrine, it is understood that the basis of the law generally and international law specifically are put in the metaphysics and it is emphasized that there are general principles and rules which govern the individuals and States and States have to obey them.

In other words, principles and rules beyond the will. Tomas Habz philosopher and the British jurist only considers natural law as the basis of international law. But from his point of view, the most important principle of the natural law is the right of self-preservation. In the framework of natural law we face with a collective of primordial, eternal and immutable rights which do not need the elapse of the time and it includes all the humans from every race and sex. Therefore, no statutory and contractual rule can deprive them of a human. From the view point of those who believe in the common humanistic nature, the inspired rules

from the nature of human are so basic that the final aim of a regulation are the rights which are based upon the general awareness and pursuit of human values rules which are the proper finale for the human.

On this basis, the legal regulation which is contained of natural law principles is beyond the desire of the individuals. This point must be mentioned that, the teachings of natural law doctrine especially at the beginning of nineteenth century weakened, however this fact must not be considered as complete disappearance of principle and beliefs of natural law. In this regard, some has used the expression hibernation. Although the natural law lost its position as an inclusive basis of international law for a while, from the late nineteenth century it's observed the reviving of the natural law ideas and thoughts in the basis of international law field. Generally the basic principles of the law are as old as the state. In the framework of this school-unlike natural laws which imagined the legal rules as fixed and eternal and know the state as the positive law of these rules, its advocates know the international law rules as the product of the states will. In this regard, the system which is meant by lawyers is a logically consistent system which creates beyond a deductive pure process, all the rules required for making decisions about the existing and possible issues in the system.

Similarly, unlike the natural law attitude in which belief in metaphysical basis was of great validity and merely by induction, the nature of them can be achieved, the positive law can be achieved by induction and without resorting to the principals of metaphysical concepts. Thus "real law", "ideal law", "law at the same level with reality", "law at the same level of value" are distinct from each other. Such an attitude does not necessarily contradict with the idea which considers "law" as a result of divine will the nature of the objects or human. However, based on the definition, the laws which are not made of will, are not "law" on their own and it means that they should enter into the positive law to become accessible. In other words, Laws have to be made. Often "positive law" and "natural law" are put against each other. Although the positive law doctrine has more consistency with the international system because of the consideration of consent and the states' will as the formation basis of rules, it could not and also it cannot be responsible of the issues and requirements of the current international community.

The development of the human rights and other humanistic considerations especially from the early twentieth century showed the reviving of the principles and natural law ideas in the international law realm. Specifically ratification and formulation of the he Hague Conventions of 1899 and 1907, the adoption of the UN Charter in 1945, that its introduction begins with "we the people of the United States" and the human dignity and fundamental human rights are among the aims and desires of the United Nations. Issuing of the Universal Declaration of Human Rights in 1948, ratification of the Civil and Political Rights in 1996, ratification of the four Geneva Conventions in 1949, ratification of the adjoined Protocols in 1977, the real manifestation of the humanistic values in the form of valuing individual in the international law by predicting individual complaints in international juridical institutions. Special attention of the international court of justice to the humanistic aims and desires, Drafting and ratification of the binding Genocide convention in 1948 and the ratification of several human rights' documents..., and also the dimensions of the permanent and temporary inter states criminal courts in order to act against the serious and systematic violations of the humanistic values. In this framework we can name the establishment of the Nuremberg and Tokyo Criminal tribunals, Criminal Court for the former Yugoslavia and Rwanda and the International Criminal Court in 2002, and it should be noted that not paying attention to the power and the role of the accused official during the prosecution and punishment is another great traits of the above courts), the establishment of several judicial and quasi-judicial institutions especially in the area, all shows the importance of the principles and basis of the natural laws in

the international level. Nowadays, human right is another saying of the natural law.

### 2.3 The Procedure of the International "Judicial Practice"

From the conceptual and general point of view, it previously mentioned in detail about the modern custom and the process of its recognition in the international judicial practice. Undoubtedly, nowadays, the dominant procedure in the process of the recognition of the customary rules related to the humanistic considerations is affected by the transitions which result from the development of the related concepts. It is transitioned from the initial recognition to the central discovery of "legal belief". If we put apart the theoretical basis of this transition, it should be noted that it is necessary to investigate the procedures of some valid international judicial organizations. It is obvious that just a collection of the judicial ideas in order to introduce the procedure, is enough.

#### 2.3.1 International Court of Justice

As mentioned, the recognition of the article 3 common to the Four Geneva conventions in 1949 by the international court of justice in the case of Nicaragua was a turning point in the new international judicial practice in the process of recognition of the customary international law. In the case of armed conflict not of an international character occurring in the territory of one of the High Contracting Parties, each Party to the conflict shall be bound to apply, as a minimum, the following provisions:

(1) Persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed 'hors de combat' by sickness, wounds, detention, or any other cause, shall in all circumstances be treated humanely, without any adverse distinction founded on race, color, religion or faith, sex, birth or wealth, or any other similar criteria.

To this end, the following acts are and shall remain prohibited at any time and in any place whatsoever with respect to the above-mentioned persons: (a) violence to life and person, in particular murder of all kinds, mutilation, cruel treatment and torture; (b) taking of hostages; (c) outrages upon personal dignity, in particular humiliating and degrading treatment (d) the passing of sentences and the carrying out of executions without previous judgment pronounced by a regularly constituted court, affording all the judicial guarantees which are recognized as indispensable by civilized peoples. (2) The wounded and sick shall be collected and cared for. An impartial humanitarian body, such as the International Committee of the Red Cross, may offer its services to the Parties to the conflict. The Parties to the conflict should further endeavor to bring into force, by means of special agreements, all or part of the other provisions of the present Convention. The application of the preceding provisions shall not affect the legal status of the Parties to the conflict.

### 3 Legal Mechanisms indicating Opinio Juris

As internationally legal frameworks, treaties have always played a major role in manifestation of States' legal belief. The content of a treaty as an internationally authentic act, perfectly can reflect States tendencies in connection with global issues. Even according to some scholars, a treaty, specially a law-making one, is the strongest manifestation of States legal belief. Tangibly the recent Statement seems to be exaggerated, because States conclude treaties for diverse purposes and mostly they know that they don't include the international customary law. Accordingly, the consent to be bound by a treaty doesn't inherently reveal the State belief containing the text accordance with custom. However, such statement can be acceptable just about the declarative treaties, because these kind of treaties reflect the remarkably extent of States' general legal belief stating their content have already entered the international customary law realm and its customary content still continues. As the linchpin of opinio Juris, generally treaties including bilateral and

multilateral have a significant role in formation of customary rules.

In terms of reflecting all viewpoints of State including legislator and executive arms, treaties enjoy the legal content and potentially transmit the legal belief of party State. In order to prove and estimate the states tendencies concerning the accessed treaty, the text and primary actions relating the treaty codification, must clearly indicate the commitment of party states to the binding legal belief and potentially can be binding for all states including non-party states. ICJ that has always considered the primary actions concerning treaty conclusion as the auxiliary means in recognition of States belief toward customary law, in the case concerning *North Continental Shelf* declared that the accomplished negotiations in Commission indicates that the principle of “median line” as has been stipulated in article six of Commission, had been notably encountered some remarkable hesitations when it was proposed, in a way that they considered it more *Lege ferenda* rather than *Lege lata* or as an emerging rule of customary international law.

Consequently, ICJ though considering the primary actions of 1958 Geneva treaty concluded that there was not any legal belief toward considering the median line method as a general legal rule among those States. Based on the States declared believes, their consent to the treaty text also can indicate the stating reasons of States legal belief (Lepard, 2010). Signature, ratification or accession to a treaty, indicates the consent process of a State to a treaty. In this process, ratification is absolutely more significant than the others. It must be noted that the accession of States to a treaty can include various intentions and only acceptance process of a treaty cannot reveal ipso facto the legal belief of States. In this regard, The States intention must explicitly symbolize the legal belief of them on its legal and binding content, regardless of their accession to treaty or not. As it mentioned, there will be limited problems in declarative treaties, because in these cases either in treaty text (introduction) or articles it is explicitly stipulated or by any other way including the prohibition of reservation right, it is clarified. However, in other kind of treaties, the recognition of “legal belief” will be partially difficult. In these cases also, for example, evaluation of States viewpoints within signature and ratification, the tone of treaty, and States speed in ratification of treaty after signature, even their following approach before the entering into force and some other cases can be appropriate tools in extracting the legal belief toward the accessed treaty.

Furthermore, the number of States accessing to treaty, temporal domain which is needed to entering into force and the frequency usage of “termination” and “withdrawal” clauses in the treaty text, must be taken into account as well. Therefore, treaties totally can contribute particularly in recognition of States legal belief and even objection and non-accession of States to these instruments can indicate the viewpoint and negative propensity of States toward an issue which is covered by treaty.

#### 4 The Role of UN General Assembly and other Similar Texts as the Proving Evidence of *Opinio Juris*

One of the most significant tools extracting States legal belief is the UNGA resolutions. Likewise treaties, resolutions can reflect States viewpoints addressed by GA as well. As an institution enjoying the general jurisdiction, GA can investigate the diverse domain of international issues and subsequently is an important reason indicating States legal belief. In this regard the tenth article of UN charter declares: “*the general assembly may consider the general principles of cooperation in the maintenance of International Peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the members of the Security Council or both.*” Moreover, in article 13 it is explicitly emphasized that GA “*shall initiate studies and make recommendations for the purpose of: a. promoting International cooperation in the political field and encouraging the progressive development of international law*

*and its codification; b. promoting International cooperation in the economic, social, cultural, educational and health fields and assisting the realization of Human Rights and fundamental freedoms for all without distinction as to race sex language for religion*” It must be noted that GA resolutions do not directly participate in custom-making process, rather is considered only as a ground for explanation of States tendencies in a general level.

There is no any reason for States not to be able to declare their legal belief though GA resolutions concerning a specific norm as an internationally legal norm. States votes in relation to resolutions and their statements that have been framed in this form (resolution), easily will reflect their approach. On this basis, such resolutions either can codify customary international law or be effective in genesis of modern customary law. Regarding the declarative resolutions, it must be stated that, since the purpose of these resolutions are manifesting the general principles of international law, consequently have this potential to reveal States legal belief concerning their customary and continuous nature. This fact that GA resolutions can indicate the existing customary law or be considered as the indicator of States legal belief, has been noted under the international judiciary practice. In case concerning Nicaragua, in order to recognize the existence of the customary rule relating non-use of force among the States, ICJ found “legal belief” extractable by resorting to some GA resolutions indicating propensities of States. The consent to the text of such resolutions can be considered as acceptance of regulation validity or the rules creating the legal framework of those resolutions.

In case concerning legality of the threat or use of nuclear weapons ICJ expressed the same statement: “*they can, in certain circumstances, provide evidence important for establishing the existence of a rule or the emergence of an opinio juris.*” Referring to some resolutions in Nicaragua case and adherence to “*certain circumstances*” in legality case is not accidental. Such considerations of ICJ indicating all resolutions of GA aren’t evidence for emerging a general legal belief. Under the certain circumstances, resolution can indicate customary international law. In the latest case, ICJ asserted- concerning discussed issue- in spite of high rate of States nay and abstaining votes, many resolutions have been adopted that none of them proving an “*opinio juris*”. In this respect, even a consensual resolution may not reflect States legal belief, when the primary situation symbolizes the affirmative votes have been gained only under some political considerations rather legal will of States. Thus, in general legal belief obtaining process of States, only cannot be relied on superficial form of resolutions. Wordings, adoption process and general framework of resolution must be deeply scrutinized. The general consensus and unanimity do not necessarily prove the aforesaid intention; conversely, the price of achieving consensus or any kind of objection absence may be either absence of a binding legal rule or a kind of ambiguity in which the several legal perceptions are possible.

Consequently, the recent Status can invalidate a rule legally as well. For example in connection with adoption by consensus of some resolutions concerning Outer Space, after a meticulous analysis, Pro Cheng (1986) has concluded that there is no any comprehensive agreement on recognition of these resolution content as “Instant” customary international law. Similar to declarative treaties, some resolutions also enjoy such peculiarity that can be obtained by legal stipulation in several stages including; related ingredients listed in text, primary actions concerning its codification, viewpoints of States within drafting and adoption, resolution tone and some other factors. For example, the famous 2625 GA resolution concerning “*principles of international law*” which is legally general manifestation sample of State belief and indicator of customary international law principles. The framework of this resolution- both in text and title- explicitly contain some international law principles governing on States relations and ICJ has confirmed it in case concerning Nicaragua as well and recognized the resolution content as general explanation of States legal belief. The third

article of defining international aggression resolution and (1)95 resolution- reflecting principles listed in Nuremberg charter-are some other manifestation samples of States general legal belief.

A point seems to be reemphasized; except with organizational and internal issues, UNGA resolutions are only a recommendatory and not binding for state-members. Recommendation means a non-binding advice. In framework of general international practice, advice is explanation of a legal act containing a tendency, however is not binding for its addressees. General Assembly resolutions as a series of recommendation document even though does not contain the authoritative content, according to ICJ at least enjoy a persuasive validity. ICJ in 1966 and in *South West Africa* case explicitly emphasized on the recommendatory nature of GA resolutions. However, their persuasive power can be considerable and at the same time their authoritative dimension does not make them binding. Now some points concerning the situation of resolutions explaining general legal belief of States. As it mentioned, the primary actions relating to resolution codification and the text wordings play an important role in extracting States legal belief. In connection with resolution wordings and used tone, Pro Viralli believes resolutions always contain some signs concerning its creators' will, however, for comprehending such signs, getting familiar with special language of diplomacy is necessary. An example is usage of "shall" and "should" interchangeably. In this respect, ICJ believes the way of UNGA resolution wordings is the significant factor in determining their validity as evidence of States legal belief. In case concerning Nicaragua ICJ declares: "the resolution demonstrates that the States represented in the General Assembly regard the exception to the prohibition of force constituted by the right of individual or collective self-defense as already a matter of customary international law". In Court ruling relating to legality of the threat or use of nuclear weapons, the content of resolution and its ratified circumstances for obtaining the legal belief was considered as well.

In this framework, not only it is necessary the agreed States opinions to be examined, but also the explanation concerning those opinions separately and States statement concerning every paragraph must be scrutinized as well. In case concerning Texaco against Libya, the arbitrator asserted, even though the resolution 3201 relating to creation of new world economic order has been adopted without voting, issued statements by representatives of exporting States symbolize these States had not agreed with change and reforming the rules relating to expropriation compensation which had been previously declared in resolution 1803 concerning permanent sovereignty over natural resources. According to McDougal, for decision making about whether a resolution or UN statement is exact expression of nations expectation from law, various facts need to be clarified, including: how many States do vote in favor or against the resolution or statement? To what extent is the relative power of voters? To what extent the listed policies in resolution is consistent with previous expectation? What has happened after the resolution adoption? What expectations can be created from the other sources? Title of resolution, in some cases may reflect the agreed States will as well. For its very important decisions, GA sometimes determines a specific title like "Declaration", including: Universal Declaration of Human Rights, Declaration on the Granting of Independence to Colonial Countries and Peoples and Declaration on Friendly Relations. However, the title of a resolution is not considered as a miracle.

There may not be a sufficient acceptance concerning specific part of a resolution or declaration- as *lege lata*- on one hand, and there may be a resolution does not enjoy the title of declaration or any similar title on the other. However, as *lege lata* it can be the manifestation of international community unanimity relating to rules listed in resolution. Regardless of declarative resolutions explaining the existing customary international law, about the other resolutions; the more affirmative vote of States within voting, the more effectivity in obtaining the general legal belief of States and consequently formation of customary rule. It must be repeatedly considered that, if a resolution does not contain the

general legal belief of States, at least can express the viewpoints of States concerning an issue that can contribute in genesis process of customary international law. The more number of affirmative votes to resolutions containing a specific rule, the more validity as explaining evidence of States legal belief they will enjoy. According to one noted researcher, repetition of the same norms in the consecutive instruments expressing soft law can lead to the creation of international community legal belief. In his dissenting opinion, Judge Tanaka has expressed the same perception in case concerning South West Africa in 1966. According to Tanaka, even though GA resolutions don't enjoy the binding power, what for customary international law necessary is, include the repetition of similar approaches that usually are observable in these kind of resolutions and declarations. The mentioned considerations concerning GA resolutions role as the reflecting evidence of States legal belief, undoubtedly is applicable about the other similar texts. For example, ICJ in Nicaragua ruling, referring to Helsinki final act ratified in conference on security and co-operation in Europe, recognized it as the States will evidence on prohibition of force use rule. However, since GA is only international public authority guaranteeing all States attendance, as a result enjoys a major role in explanation of States viewpoints and general tendencies concerning various issues. Security Council, Human Rights Council, International Organizations, European Union, Regional and Trans-regional Organization, public conferences and some other institutions, according to their authority, can reflect the States belief and propensities concerning specific issues.

## 5 Conclusions

Even though obtaining the general, widespread and uniform practice is considered necessary in genesis of customary international law, judicial practice indicates that in relative absence of these conditions, dominant appearance of *opinio juris* can be compensatory. On the other words, the judicial policy of Court has mostly lain on amending the defect of practice through paying more attention to *opinio juris* and obtaining the States firm legal belief. The prohibition on use of force and interference of States in their domestic affairs (Nicaragua case, 1986), is a noted example of applying such policies. Consideration of States silence and non-objection can be stated as the other evidence obtaining the *opinio juris*. International law Association in Statement of principles applicable to the formation of general customary international law in 2000, in spite of its general view recognizing the proving of *opinio juris* unnecessary in process making of customary rules, explicitly expresses that the conduct of States and international courts and tribunals, a substantial manifestation of acceptance (consent or belief) by States that a customary rule exists may compensate for a relative lack of practice. Moreover, some scholars like Cheng believe that *opinio juris* is only principle element of custom-making. Regardless of central role of *opinio juris* in genesis of customary rule, the twofold system governing on formation of customary rule must not be ignored. Even though based on some conditions it may play a major role in crystallization of custom, similar to *opinio juris*, existence of practice is necessary for formation of customary rule as well. Finally, treaties and resolutions provided that not to be derived from political considerations most probably indicate the States legal belief. Treaties are the output of threefold powers (legislation, judiciary, executive) and accordingly symbolize the State's *opinio juris* in various legal affairs. Resolutions of UNGA also are created to reflect the viewpoint of States member concern with several issues. Thus, every full powered mission member is authorized to manifest his State's specific *opinio juris* either by voting in favor of resolution or against it, even by putting the silence policy on the agenda.

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## DECODING THE GENESIS OF THE PRACTICE CONCERNING CUSTOMARY INTERNATIONAL LAW

<sup>a</sup>JABER SEYVANIZAD

<sup>a</sup>Young Researchers and Elite Club, Urmia Branch, Islamic Azad University, Urmia, Iran.

PH.D.C of international law & Corresponding Author

Email: "sayvania@gmail.com"

Abstract. International customary rule is composed of the two elements, material that is called practice and immaterial factor which is called *opinio juris*. Through the descriptive method, this article is promised to investigate the limits and various dimensions concerning the practice factor. According to the results, material element at the first step implies states practice and there are no any written and specific rules about what qualifications the practice should have. Issues including the length that the practice should be obtained, repetition of the practice, degree of the practice coherency and integrity, generality of the practice, essence of the practice, practices that are criteria in this framework and finally the other practice makers other than States, are a part of the most significant issues that should be considered in determination.

Key Words: Practice, Customary Law, Refusal, Omission, Beneficiary States

### 1 Introduction

(general practice ) that is accepted as law, inserted in 38 (1) (B) Article of international court of Justice Statute, basically indicates state practices and this issue is inferred from Court views well. States do not have physical entity. They are a collection of connected governing institutions (organs) that have a complete legal personality. Sovereignty is considered as constitution and the main emblem of government due to international law and is explanatory of its place in international relations. In Max Huber's view in judgement related to Palmas island (1928); (sovereignty indicates the independence in relations between States.) And independence also as has been put by Anzilotti at his personal theory in advisory view of international Permanent Court of justice in 1931 regarding tariff regimes between Austria and Germany, means that the state which according to international law has sovereignty, receives its entity and authority from that same international law. State practices through qualified organs appear that form the main movement of rulemaking at international level. Determination of state qualified organs according to international law has been allotted to its own inside legal system. According to article 4 of International law commission plan draft regarding international responsibility of states 2001, behavior of each governmental organ -according to international law- is considered as the practice of that State regardless of that organ has a legislative, judicial ,executive function or another function and whether what position the mentioned organ has in governmental organization and this organ is an element of central government or an element of local governmental unit (paragraph 1).

The way of separation of power and competency domain among government's different organs also has been allotted to their inner system that of course following considerations should be considered: 1)although the determination of competency domain of formal organs is the responsibility of governments inner system, international law regarding some senior governmental authorities (e.g. the head of the state) considers them among government Ostensible representative who even have competency behind what is defined in inner system framework for them. Concerning making agreement, such a situation has been affirmed by international Court of justice in the case related to maritime and territorial boundary between *Cameroon and Nigeria in 2002*. And Court about this case has based its own verdict on Article 7 (2) of Wien convention on law of treaty 1969. There is no reason to conceive that substantial difference exists in the relation between treaty-making and the process of custom-making (Danilenko, 1995). Nevertheless, we emphasize that the form of exerting such a verdict will include just some of state senior formal authorities.

2) When a government formal ordinary organ acts over its authorities, their behavior will not be contributed in the process of custom-making, albeit by doing a violating act, this issue ascribed to the state and consequently will followed by its international responsibility. In other words, behavior outside authority domain of state formal organs – other than about a few number of senior authorities that already was mentioned – cannot be noticed as making element in rule making process, although it is possible - if being violating- to lead to the responsibility of states at international level(Danilenko, 1998). Concerning this issue, it needs to be stated that the executive power measures must be considered and not only foreign ministry. Leading of international negotiations and occasions in nowadays modern method is not always the responsibility of foreign ministry. This task can be done by economy, transportation ministry and etc. Other than the cases that an executive organ take measures outside its authority domain and its action is rejected by senior authority, apparently there are no appropriate reasons regarding that why state capacity of practice-creating be confined to foreign ministry. ICJ in the case of the *NotteBohmm 1955* states that a governmental rule (whether constitution that is possible, for example, to include claim of competency on maritime areas) can be considered as the manifestation of that state practice. Court in *Lutos verdict* also emphasizes on this issue in the same manner that inner courts are part of government organs and their decisions must considered as a part of state practice. Legislation of territorial rules and reflex ion of them in judicial verdicts during legal procedure can be viewed as notable indicatives of government behavior; particularly, basic and main rules of each country regarding limitation or desigment of government competencies, separation and resignation of authorities and promotion of human rights.

Also, verdicts issued from inner courts particularly can be suitable delineation of executive condition of legal processes, realization of justice immunities and extradition. In many case we see the state practice-making through association of the triple powers with each other. For example, the request of extradition is made. In this case, approving or disapproving national rule, inner court decision and accomplishment or not doing extradition by executive government can be a manifestation of government real practice regarding the mentioned issue (Gilbert, 1998).Also about the governments that have confederation or federal position like US and Switzerland, it primarily must be told that practices of each of their inner territorial units – that also do not have international independent personality- cannot be viewed as state practice, unless their practices are on behalf of central government and or approve and pass by them. Thus, state practice, as it was described, has a determining role in creating rules of customary international law. Indeed, states as main subjects of international system and their behavior and approach as the basic element of rule-making in this domain, has the most important and dominant role in the area of (practice makers).

### 1.1 International Organizations

Even though "general practice" as the material element of custom-making basically indicate state practice, international organizations that are created to organize disorder in international relations in generating systemic order has increasingly developed these days and actually is considered as an inseparable part of international life and plays roles in different areas. This increasingly development has been the outcome of extension of international relations particularly in twentieth century. international organizations that first has just took step in international domains in limited areas and the framework of technical issues, presently has generalized own activities domain to most important international issues including legal, political and security issues. Thus, international organizations due to having subjective legal personality are considered one of the active subjects of international law and

therein can be both producer of right and obligation, and its subject. Although organizations firstly take this own personality form the State will, they with continuance in their activities act as an independent legal personality. Nevertheless, international organizations practice also can be effective in practice-making process and codifying legal rules because the practice of all subjects of international system contributed in generating and creating legal rules. Generally, as international organizations have capacity of treaty-making in international legal area to implement their missions and achieve aims that has been made for their realization – that its borders has been defined in Wien convention on law of treaty among countries and international organizations and or international organization with each other on March 21, 1986- as they also can participate in the formation process of general customary international law through the practice of their organs.

Such association is actually of main impacts and consequences of having independent international legal personality. Of course, we should note that acceptance of legal personality for international organizations should not lead to this conclusion that state members of an organization do not have any independent practice in involved organization framework anymore, and what is efficient in deduction of customary rules is only the practice of the organization itself. International organizations privilege of independent legal personality of constitutive members will not have any conflict with obtaining independent practice of state members of the organization, because one state do not lose own entity and identity due to enrolling in an international organization, rather it assigns some of own competencies and authorities to the related organization to achieve a specific aim. As we will see in the following, international organization resolutions, particularly, *United Nations* General Assembly resolutions are a very appropriate place to assess state practices in discussed issues and a manifestation and reflective of their legal belief. International Court of Justice in advisory verdict related to the reservation on genocide Convention 1951, in explanation of customary law related to reservation, noted the practice of United Nations Secretary General as trustee of many of multilateral treaties alongside the state practice of national authorities. Regardless of the above case as an example of organization behavior, many of other practices of international organizations through their decisions appear in the form of responsible authorities' resolution, statement, and declarations. Therefore, presentation of such documents can be considered as a clear sample of organization practice. Concerning this, even some authors view organization approach as a custom constitutive material element as concrete only in this form and do not accept crystallization of the organization tangible function in the way described above (Higgins, 1987) Oppositely, some others of commentators seek organization practice manifestation just in the framework of tangible behavior of it (and not verbal in the form of resolution and statement) (Mandelson, 2000, p.201). These last group believed that the passage of any resolutions and statements by international organization is more explanatory of governments function which are member of that organization rather than the organization itself, when electing about pros and cons of one resolution that poses some issues regarding international law, states are forming their own practice about the discussed issue or try to display own legal belief related to the matter. Therefore, it is better to know such a function more as a manifestation of state behavior and inclination than assessing organization practice (Ibid, p.202) Hence, international organizations as main subjects of international law system can participate in practice-making process and forming of rules of law, whether in the framework of inner organs and or in relation to other governments at international relations level.

### 1.2 International Judicial Authorities

International court and tribunals are not legislation authorities. The point that is needed to be noted here is that whether international judicial authorities themselves can make practice in the process of international customary law formation? In other words, whether decisions of these authorities can be considered

as “general practice” that constitutes the material element of custom? This issue can be represented from 3 perspectives. One is considering international court and tribunals as constitutions that take their competency and authorities from governments. Thus, their verdicts are viewed as a form of state practice and another that consideration of this authorities as inner organs of an international organization and thus viewing their decisions as the approach of that organization and finally the judicial practice of judicial authorities that can find the presence of customary rules in different areas. In each 3 ways, the issue is that whether international courts and tribunals can be material element of custom-making practice? Regarding this issue, some authors has considered these authorities decisions as a form of state delegation practice. Professor Wolfke believes; this fact that states accept verdicts and ideas of judicial organs means that such decisions per se can be viewed as a form of state practice (Wolfke, 1993). In his viewpoint, such an idea also has been already affirmed by *Guggenheim*. Then Wolfke clearly has point out the international Court of justice practice and accordingly analyses planned references of Court to own prior decisions and also references of other international constitutions including states themselves, international organizations, non-governmental organizations, international law commission and doctrine to such decisions in this framework (Ibid, p.74)

Form his view; it is completely natural that we assess judicial history in the framework of the international practice leading to formation of customary law. It has been explicitly accepted by states. Wolfke even in opposite of persons who believes in kind of made and polished law should be viewed (Ibid, p.75). Also, then some judgments of court are adduced by this lawyer to prove the claim. For example, Court in the case of boundaries limitation of continental shelf between Canada/ Us in 1984 has specified that ( ...Court verdict ...in the cases of North sea continental shelf has been considered as the greatest participation of this authority in application of governing customary law in the discussed area.) part D of paragraph 1 of Article 38 international Court of justice Statute that due to it(... judicial decisions ... as accessory tools to determine rules of law) is considered, also is another reason that has been posed by Wolfke regarding the practice-making role of international judicial authorities verdicts. He believes that this part of Article 38 indirectly guarantees the acceptance of some degree of rulemaking by judicial authorities (Wolfke, 1993).

### 1.3 Non-governmental International Organizations

Primarily does not accept governing doctrine, direct participation of non-governmental international organizations in the making process of international customary law. Although the situation related to treaties is also the same. Non-governmental international organizations are not active subjects of international law and cannot cause right or obligation. They can merely be the subject of right of obligation. Unlike non-governmental international organizations that directly participate in the practice-making process leading to the formation of customary material element, role of non-governmental organizations is only limited to some secret lobbies in backstage and influence on state agents in diplomatic conferences and international assemblies. Therefore, non-governmental organizations can play important roles in all steps related to the formation of customary law, from the beginning of the negotiations and reasons gathering to identifying and final ratification of rule, but they do not have direct participation in the process. Also, - clearly about treaties- non-governmental organizations is possible to enter extensive strains on international society members to put a specific treaty draft in the agenda of future negotiations and or even, in some cases, it's possible to represent a specific draft text of own to be combined with the text that is developed by states (Hobe, 2005). But ultimately, it is these states – and not non-governmental organizations- that participate in the conclusion of treaties. The situation regarding customary international law norms that the above-mentioned organizations, with respect to them, can

indirectly influence on governments function and their approach development (Ibid, p.214).

## 2 Nature of Practice

### 2.1 Verbal and Material Acts

Generally counting practices and behavior that guarantee international practice leading to the formation of customary rule is not a simple task. Primarily, material elements or practice can include both physical and material act of states and verbal act of them. Nevertheless, lawyers' view regarding this issue is not the same because some of the related specialists accept only physical acts as practice, while it seems that dominant view about this issue regarding international judicial practice indicate any kind of behavior as the material element custom-formation. Then, we will continue this discussion in detail. As it mentioned, there is a disagreement concerning the nature of state practice – like other posed issues in the present writing. Some lawyers like Damato and Wolfke view only state material and physical acts as a manifestation of the practice and representing a strict concept regarding this issue, limit the source range of custom's material element. They believe that any claims or general statements per se cannot be explanatory of state practice. In this regard professor Damato asserts; a claim is not an act. Although the claims may articulate a legal norm, they can't constitute the material component of custom. (Damato, 1971, p88) According to him, sending missiles, nuclear procedures, receiving ambassadors, making levies on customs duties, expelling an alien, capturing a pirate vessel, setting up a drilling rig in the continental shelf, visiting and searching a neutral ship and ...are among the most important state's practices. For a state has not done anything when it makes a claim; until it takes enforcement action, the claim has little value as a prediction of what the state will actually do(idem). The situation is the same in the cases that a state decides to support or oppose the development or changing of an act. Damato provides an example in this regard; sending the first Sputnik to the globe and at the same time the development of the customary law related to passing the satellite over other countries' territories. He believes that if a state's decision was to oppose the development of this law, it was necessary for the states to show this either by providing a constraint for passing the aforementioned satellite, or in the case of lack of ability to do this by any way to act against the Soviet Union (idem, p89). Also Damato pays attention to the possibility of difference between the actions and words of states. If our understanding of practice component implies both physical and verbal behavior, we might occasionally face with the issue that there is a difference between what the state says and acts. Basically, this difference will not exist if we consider practices as physical acts. The state can say many things with different voices at the one time but a state can act in only one way at one time (idem, p 51). In addition to Damato, Professor Wei provides nearly the same analysis about the practice component. In his opinion, providing a great commentary of what would be the material component of custom including the placing of different verbal acts such as unilateral intimations, declarations, statements, resolutions, and treaties and... in this framework, only leads to the increase of ambiguities. Specially, in regard of Wolfke's point of view and other similar views; there is no reason for not paying attention to the verbal acts or general declarations of the states. In this regard, hinting to the professor Mullerson's ideas would be logical. Although he will not show clearly the component of the actions that comprise the states practice, he puts the acceptance of the wide concept of the evidences that formulate material component of the custom against the same challenge, as was put by Damato. At first he acknowledges that there is a distinction between what the states claim and what the states act. For example, "the claim" of having the right of innocent passage in waters of a territory and it's "enforcement". But he asserts that in the case of acceptance of the wide definition of practice, what would be the way to distinguish it from the legal believes of the states? (Mullerson, 1998) In this regard also Red considers the distinction between act and legal belief where verbal acts are paid attention as the

reason for creating practices. Nevertheless, Mullerson does not clearly assert that he agrees with the acceptance of verbal acts as the state's practices or not. Finally, he states his analysis this way, that the state's practice can contain both subjective component [verbal acts] and the objective component [physical acts] but the subjective component is not always defined as legal belief (idem). Mullerson believes that subjective attitudes of the states about their act may be implied in their actions (idem).

Diplomatic statements(such as complaints), political statements, press releases, official instructions(such as military law) , armed forces' circular, states' interpretations about the drafts of the treaties , domestic legislation, votes of the national courts and executive authorities, the views of the governments before international courts, international organizations' statements and resolutions are all examples of the verbal acts. Thus, international law association besides Akehurst and Mendelson discusses the quality of participation of verbal acts similar to the physical acts in the process of practice-making which lead to the formation of the material component of custom. Finally it acknowledges despite of the content above, we can consider some of the declarations more usefully as just stating the beliefs than the official acts of the state's practice. Professor Dinstein believes a view which only considers physical acts as the component of custom, is a highly exaggerated view (Dinstein, 2006). This jurist believes this is right that in a wide level a physical act is of a greater importance in comparison to a verbal announcement, warning, or censures (totally verbal acts) however, there is no difference between them in terms of their validity. Actually Dinstein considers a higher value for some actions such as laws authorized by parliaments and the votes issued by the courts than other verbal acts.

In his opinion, undoubtedly, laws authorized by legislative institutions and domestic courts' decisions have a higher value like physical acts –or even more value – in the process of practice-making, however, in other cases the general declarations of the states including statements, announcements and notices, only have a side role (idem) and they cannot make an practice which leads to the formation of the material component of custom without the states' physical acts (idem, p 276). Thus although at first, he considers physical and verbal acts of the states in the same way, finally , he makes some distinctions between them in relation to their role quality in the process of practice-making which lead to the creation of customary rules. Yet this dissociation is not at all comparable to the Twirl Wee point of views who considered totally verbal acts as the evidences for making practices. Dinstein believes in this framework, when the preconditions are available, the general statements of the states can put their actions in a special situation, especially by making clarification of that action or by making explanation of that as an exception to the rule. In other words, there would be a kind of impact on the delimitation of the discussed rule. But this cannot contribute to the process of making the quantitative component of custom on its own (idem, p 277). Besides the judicial practices, international law association in the year 1950 clearly mentions treaties, domestic courts' decisions, national rules, diplomatic correspondences and national legal advisors' beliefs as examples of the possible different forms of the state practice, as well. Also the states' considerations especially big states imply the acceptance of verbal acts as a kind of the state practice. Declarations of the rights of foreign relations of the United States (section 102) states; actions and diplomatic instructions and other governmental acts and official statements whether they have been taken unilaterally or in a form of collaboration with other states ,for example in the framework of international organizations, they can establish different forms of the states' practice. Relying on the verbal acts of the states in order to search for the customary law is the current reality of the international system and is of great importance, especially, for those states which do not have the material facilities for taking actions in a special field.

For example, for the states which do not have the weapons for mass destruction or the states which do not have the facilities for sending satellites to the space or landlocked states, verbal act is the only way of practice for them. As was mentioned above, The International Court of Justice has consistently cited official correspondences, diplomatic declarations and other similar cases and the states have not objected to them.

## 2.2 Verbal Element; Emergence in the Practice or Legal Belief?

As was stated before, the majority attitude toward the defining of the nature of material component of custom contains both physical and verbal acts. Here the problem is that when verbal acts are considered as both the practice evidences and legal belief evidences, what would be the way to authenticate and dissociate them? Verbal acts are being considered as the most important evidence for proving the existence of legal belief. The result which is achieved in this case, according to some lawyers, will be an epistemological way which causes one of the components of the creator of the customary International law rule look redundant. Viewing more meticulously, the solving of problem does not seem to be difficult. Although apparently and at first, considering verbal acts as evidences for both creating practice and evidences for creating legal belief of the states, can lead to the fomenting of some ambiguities, these problems can appear where the states do not have any verbal act about an issue. In the recent case- besides the material component-also the mental component is extracted on the basis of the wide and convincing practice of the states and not through understanding of the preconceived notions. This has been expressly confirmed in the votes of the Court Branch in the year 1984 (Gulf of Maine case). Thus necessarily, insisting on the dissociation between the sources of the evidences of components of custom is not logical. As the verbal acts can show the states practices and also the legal beliefs, physical acts can also contain such situations but in the case of the former we face a different situation. In this regard some of the lawyers, in addition to acknowledging that verbal acts of the states can be cited as a form of practice, they believe that the contents of such actions will also show the mental elements or their legal beliefs. (Mendelson, 2000).

## 2.3 Refusal or Omission

Although the material element or practice implies the states' actions( both physical and verbal), it is possible that under especial situations, refusing to take action( refusal) will be paid attention as a kind of the state's practice in the process of the formation of legal international customary rules. For example, refusal to prosecute an accused or suspect foreigner diplomat for committing the crime in order to create the customary rules related to the diplomatic immunities. The majority of the authors and commentators have more or less accepted the role of refusal in the process of making practices, professor Wolfke believes that "There is no basis for excluding refusal as a kind of process which lead to the formation of the international custom. Everything depends on the situation and occasion." (Wolfke, 1993) Professor Akehurst also stated "The state's practice can contain refusal and silence." (Akehurst, 1994, p11) The point of views of other jurists such as Sorensen, Tunkin, Bernhardt, Danilenko and Kunz, in relation to the role of refusal are the same. In this way professor Mendelson also believes that; refusal can be paid attention as the material component of custom or practice but we should consider the situation and a degree of caution (Mendelson, 2006). Like other jurists such as Wolfke and Akehurst, he poses popular Lutos vote as the basis of his analysis. 168 It appears that the best understanding of the role and place of the refusal in the process of making practices which lead to the formation of customary rules, have been done in the framework of this idea. In this case, The Permanent Court of International Justice did not accept the refusal of the states (except the flag State) from the prosecuting of the accidents on high seas as an evidence for existing a customary legal international rule which ban the states from such actions(idem). But this policy of The Court was for the reason that the refusals

of the states were ambiguous and this can mean that there is no problem in situations that refusals of the states as a government practice contain no ambiguity. In this case, by citing to the lack of prosecution from the non-flag states about the claims related to the collision on the high seas, The French government was a pretender of a kind of duty for such states. The Permanent Court of Justice denies this reasoning of the French government not because of the fact that refusals of the states naturally do not have the characteristic to consider this as a "practice", but because this refusal seemed ambiguous in such situation and it was unlikely that this was as a result of aware commitment.

## 2.4 Characteristics of the Practice

Which characteristics should the practice or material component of custom have? Under which quality are the states' actions recognized as the international practice? Article 38 (1) (b) of the Statute of the International Court of Justice only considers the generality of the practice. Nevertheless, investigating of the jurists ideas about the international juridical practice implies other traits and qualities which the practice that lead to the formation of a customary rule should also contain them. We will discuss this issue in detail in this section.

### 2.4.1 The Generality of Practice and the Limits of This Generality

As was mentioned before especially in citing of the paragraph1 (b) of the article 38 of the Statute of the International Court of Justice, the international practice which lead to the formation of the customary law should be "general". But this generality does not mean the participation of the all of the states in the world in the process of making practices, because this way we should wait for years for creation of a customary law to come true that is so exceptional and far away from expectation. With the generality of the practice, it means that it implies "wideness" and "similarity" which are the basis for the formation of the rule and all of the states are required to comply with them, unless it be in the framework of "Persistent Objector". The general practices of the states contain both the sequential and parallel actions which are as a result of the practices of cognizable organizations in a period. In most of the cases these actions can be accomplished independently, however, the consistency between the states should not be disregarded. Now we should discuss about the issue that how many states should participate in this practice? There is no specific criterion in this regard and naturally like the other issues about the custom, it is difficult to exactly pose a rule about the number of the states which should participate in the practice which leads to the formation of the customary law. This participation not only contains the states actions but also it contains the reactions of other states whose interests are affected. (Akehurst, 1974). The majority of the customary rules which have been done by the international juridical authorities were based on the wide participation of the states. But it is also possible that the general practices of the states be the result of the actions of a few numbers of the countries. And it is also possible that the other states have the "once in each direction" participation. (Dinestein, 2006, p283) But it has been said that if a state or a group of states do not protest against the action of another group in the case that they are objector to that, their silence mean that they have accepted such actions. (Idem) From the standpoint of international Law association committee statement about the principles governing the formation of the international customary law, the States practices should be wide in order to create a general rule of the international customary law, so as was stated in the court's practice, and not necessarily universal, also it is not necessary for the specific governmental requirements to an international customary law, it will be proven that the mentioned state has participated in the practice actively or deliberately has agreed about that (idem).And the international judicial authorities has never denied this state from the commitment for the reason that the state has not participated actively in the practice which lead to the formation of General rule of customary international law claims.(idem).

### 2.4.2 The Time Element

Custom is formed in the floor of time (Dinstein, 2006). How much time is necessary for a customary law to come into emergence? About this we should state that there is no specific criterion. Maybe in this frame work; the time needed for the time passing for creating a customary law; the wording of the International Court of Justice in North Sea Continental Shelf Cases will be the best criterion for analyzer. Although passing a short time does not necessarily or in itself prevent the formation of the customary rule of international law, on the basis of what was basically a convention rule, but the necessary condition in this short period is that the practices of the states especially those states whose interest will have been affected especially, regarding the citation of the regulation, be wide and really consistent. In addition to this, the practice should be made so that it makes possible the recognition of the fact that a legal rule or a legal necessity has been regarded. The needed scale of time continuity in order to creation of an international customary rule depends on various related factors. For example, if an issue was stated which no other rule was accepted about that, establishing the rules concerning the issue will take shorter time than the issue which exist a customary law for it and it should be adjusted for the establishment of the new rule. Nowadays, in parallel of the development of the international relations, the importance of time is reduced. In assessing the behavior of a state, time is of low importance and its situation in each case depends on the other factors related to that activity. In the past and in the Roman law, basically custom was considered as a product of a long practice, also in the common law in order to convert the practice to law, that practice should have a long history so that nobody can remember its root time. (Mendelson, 2006). In the international level, most of the legal rules have a long history. but this does not mean that the formation of the new rules also need such history. At the present, the creations of the customary rules are provided in a short time and faster than the past (idem, p210). For example the rules governing the law of sea were first announced by President Truman in the year 1945. In the year of 1951, in the judgement of the Abu Dhabi Lord Asquith the dispute case of Petroleum Company of Dolapment and Sheikh Abu Dhabi, he ruled that the mentioned doctrine with specific line yet do not appear in the international stature of a rule of law. But over the next years and until the 958 Geneva Conference, more states claimed jurisdiction over the continental shelf. at the time of the conference had been accepted that the coastal states should have especial rules over their continental shelf. And thus 1958 convention recognized such rights for the coastal states.

### 2.4.3 Integrity and Uniformity of Practices

The practice should be Virtually Uniform in order to participate in the process of making the principles of international law. It means that the different samples of the practice, should necessarily be similar and consistent both internally and in general. That the practice should be internally consistent means that the behavior of a participated state in the process of custom-making about a special issue should be consistent in different levels.

By consistency in general, it means that different states should not have different practices about a special issue (idem). In the Nicaragua case, the court did not find an opportunity to consider come points in relation to the present issue. According to The Court when considering customary international law related to the principle of banning on the resort to the force and also the principle of prevention from intervening of the states in each other's internal affairs, this international juridical institution do not expect that the states' practice in obeying the mentioned principles be in a high rate so that they should prevent from intervention in each other's affairs by resorting to force in a consistent way. The Court believes that for the formation of a customary law, it is not necessary that the related practice be consistent with that rule. In order to establish the existence of such a rule, it will be enough that the states' behaviors be generally consistent with that and the examples of the practice

which are inconsistent and incompatible with the rule, should be treated as a violation of that rule and not the signs indicating the recognition of a new rule.

### 2.4.4 The Practice of the Beneficiary States

The wide and consistent practice of the states in order to form a customary law, should be represented. International Court of Justice in the issues related to the continental shelf of The North Sea has emphasized on the "the practices of the states whose benefits are affected in a special way" in the process of practice-making. This suggests that the number of the states in comparison to the situation and the states which are related to the issue is of lower importance because their benefits are in relation to the mentioned rule. For a claim rule to legitimate, a proper reaction from the states and the beneficiary states is needed. Thus for example we can hint to the Britain's contribution in the formation of the law of the sea in the nineteenth century and the role of the United States and the former Soviet Union in the development of the law beyond the atmosphere. Before a claim rule can find its way in the area of the customary international law, it is possible that the participation of some states be more necessary.

### 3 Conclusions

Through qualified organs, State practices appear and form the principle movement of rulemaking at international level. According to international law, the determination of State qualified organs has been allotted to its own internal legal system. In this respect ILC considers every organ behavior as State behavior, regardless of its function, including legislature, judiciary or executive. In the other level, international organizations enjoying subjective legal personality, actively act as practice makers especially that their activities realm has remarkably developed nowadays. These organizations behavior largely shows themselves in the form of declaration and resolution. International judicial authorities also can contribute as practice makers. This contribution may be realized in two forms, first as institutions that received their authority from States and their behavior is seen as States will and second, consideration of these authorities as the internal organs of an international organization and regarding their decisions as organizational practice. Similarly, Non-governmental organizations contribute just in the primary proceedings of practice making as well. ICRC is a NGO that has widely participated in formation of international humanitarian law. Concerning the nature of practice, both physical behavior of State like nuclear test and verbal act like authorities statements are regarded as practice element. However, sometimes verbal acts of States may indicate the legal belief of their doers parallel to consideration as a practice. Similar to Physical and verbal act, omission and silence also may be recognized as practice. Sometimes States manifest their will by omission or silence, like refusal to prosecution and silence on States nuclear test or bombardment. The aforementioned approach of States is regarded as their practice. The generality of practice widely relates to its uniformity and integrity. Even only two States can constitute the necessary quantity to form a regional custom. Because generality is determining not universality. The length of time is not inherently significant for realization of States practice. One practice may be consolidated just over one decade and the other may be recognized over decades. Finally, as the practice makers, the penetration coefficient of beneficiary States acts is noticeably more determining than the others as well.

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## ARTIFICIAL INTELLIGENCE AND ECONOMETRIC MODEL TO PREDICT STOCK PRICES IN THE PETROLEUM PRODUCTS INDUSTRY-TEHRAN STOCK EXCHANGE

<sup>a</sup>KHANMOHAMADI MOHAMMAD HAMED, <sup>b</sup>AMANDAD OMID

<sup>a</sup>Department of accounting, Damavand branch, Islamic Azad University, Damavand, Iran

<sup>b</sup>PhD student, Department of Accounting, Islamic Azad University, Tehran, Iran.

E-mail: <sup>a</sup>khanmohamadi.mohammadhamed@gmail.com,

<sup>b</sup>omidaman.kh1@gmail.com

**Abstract.** Financial and economic issues, especially capital markets is one area that is important in today's forecast. Various techniques exist to predict future stock prices. Fundamental analysis is one method that considers several variables. In this paper, neural network model (RBF) and econometric panel data are used to increase efficiency, reduce costs and time in fundamental analysis. For this purpose, a sample of 35 year - company of listed companies in Tehran Stock Exchange are selected in the petroleum products industry. The results indicate good accuracy in modeling to predict the stock price on the Stock Exchange and subset of industries. Also, comparing the accuracy of econometric panel data pattern with neural networks in forecasting stock price represents the neural network has higher precision.

**Key words:** fundamental analysis, prices stock prediction, RBF, panel data, petroleum products industry

### 1 Introduction

Short-term planning in various fields for survival and persistence of activity of economic entities and effective investment and financing decisions is necessary for managers, investors, users and creditors. We can have a good reaction by planning before encountering the adverse economic events. It is necessary to improve the ability to predict accurately and consistently to increase the effectiveness of programs. Because the prediction is a key element in decisions of users within the organization and outside the organization. Therefore, efficient and effective decision would be made on the basis of correct predictions (Haghighat, Bakhtiari, Beheshtipoor, 2011). In general it can be said that the predictions is estimating future forecasts and the goal of predicting is reducing risk in decision-making. Predictions are not usually correct and have some errors, and this amount is reduced by having more information about the system. The predictive value means to the use of this information in the process of predicting. In finance the information such as stock prices, profits, returns on equity, bankruptcy and risk can be predicted. Among these, forecasting of stock price is important, because they are the factors that effect on activists decision on NYSE stock prices. The existence of related information forms basic transactions in the capital market and therefore information is the most valuable assets in capital market (Economic World Press, 2007). The main goal in these markets is to predict the future trend of prices to adopt appropriate strategies for buying or selling. However, the stock market is not affected only by the macro parameters, but another important factor effect on it (Torabi and Homan, 2010). Various techniques exist to predict future stock prices. One method that considers several variables, is fundamental analysis (Yaldiz and Yazgol, 2010).

In fundamental analysis it is believed that changes in stock market are unpredictable and the behavior of stock prices is formed in accordance with the theory of random walk (Exact date not repeatable). Several factors affect the stock price. Some of these factors are economic variables and some of the variables include: financial ratios, industry conditions, and more. Analyze economic, industry and company should to be combined to predict future stock prices using fundamental analysis. In fundamental analysis the forecasts are based on the facts and real events. Trader analyze real-world events and news based on knowledge and strategies to deal with market forecasts (Murphy, 2008). The basis of fundamental analysts is that all changes in prices has probably a financial- fundamental reason and believe that the actual intrinsic value of securities can be obtained. investors can use the potential to invest in petroleum products industry to improve efficiency, and by predicting stock prices, the companies in this industry, decided to invest more appropriate to take stock. Achieving economic growth and improving

investment incentives requires an active and reliable capital markets in developing countries. This is possible through the absorption and distribution of capital and financial resources in the sector of industry (Namazi and Kyamehr, 2007).

In the past decade the financial forecasts in accounting and finance has been the subject of much research. For instance, forecasted earnings per share, stock price, earnings management, financial ruin, etc. (Peter, Vladimir and Renata, 2013). Much research have been taken in this area using statistical approaches and artificial intelligence approaches. Among the methods used, the traditional statistical methods highly dependent on assumptions such as linearity, normality, independence of predictor variables and etc (Russell and Noroyg, 2012). Previous research shows that the neural networks have predictability more than the statistical model (Olson and Masman, 2003, Arabmazar Yazdi, Ahmadi and Abduli, 2006, Kordloyi and Haideri Zare, 2010, Fahimi fard, Salarpoor and Sabouhi, 2011, Makiyan and Mousavi, 2012, 7 Chung et al, 2012). Also, if two or more models are then combined, the likelihood of achieving the best prediction increases (Nazarian et al, 2013). In addition to neural networks, econometric models are used to estimate and prediction. Time series data, cross-sectional data, panel data are these methods. Among these panel data is one of econometrics methods that that each day the desire to do it in the scientific studies expanded (Ashrafzadeh and Mehregan, 2008). Given that stock prices are one of the variables influencing investment decisions, managers and creditors, it is expected this group use advanced techniques such as artificial neural network and use panel data to predict stock prices. In this study, the panel data and artificial neural network RBF (econometric model) are used to increase effectiveness, reduce costs and fundamental analysis.

### 2 Theoretical Issues

With the development of financial markets and an increasing amount of information, participants in financial markets are looking for tools which can make precise predictions of the future state of market with them. With a review of previous research on forecasting in capital markets, predict models can be classified into four groups:

1. Technical Analysis
2. Fundamental Analysis
3. Econometrics
4. Intelligent Techniques

In this research the combination of fundamental analysis, intelligent forecasting and econometric (panel data) will be examined.

Fundamental analysis is based on the assumption that stock prices does not reflect all information with respect to time and is in search of information that do not reflected in the current stock price and, therefore, predict a future price adjustment. Because market prices in the future move to the basic values (Abarbanel and Boucher, 1997, 1998).

#### 2.1 Panel data

The panel data consist of the time series data and cross-sectional data. It means the information regarding cross sectional data can be observed over time. Such data have two dimensions, which one dimension is related to a variety of units at any given time and another is related to the time. In time series data the values of one or more variables are observed over a period of time (for example GDP over the past few years). In cross sectional data the value of one or more variable are collected at the same time for a single data or a sample (for example the stock price for the 50 companies listed in a given year). But in panel data, the same cross sectional units (for example, a specific industry) are measured at the time (Gajarati, 2010).

## 2.2 RBF Neural Network

Research and interest in artificial neural networks began when the brain as a dynamic system with a parallel processing architecture is completely inconsistent with the known conventional processors. In 19th century, William James proposed stacks change attitudes about the physiological and brain structure. Among them may be noted in brain neurons and mechanisms for parallel processing. Function Networks are Radial Basis from the family of forward neural networks. These networks introduced for the first time by Bromhid & Low in 1998. RBF network with a variety of applications is one of the most popular neural networks and is main competitors for multilayered Persopron network. This method is different from other method due to forms of training, the function of neurons and hidden layers (Haykyn, 1998).

## 3 Research background

In the literature, fundamental analysis and econometric model for panel data are not presented.

### 3.1 Internal research

Botshekan (2000) used an artificial intelligence technique called neural networks - Fuzzy (ANFIS) for predicting stock price in Bahman company and assessed the ability this model in comparison to linear models (ARIMA).also box - Jenkins method is used to determine ARIMA model. Input variables are the price index, latest stock prices, trading volume and the price of oil. The results show superiority of Network - Neuro-Fuzzy (ANFIS) in predicting the stock price relative to the linear model (ARIMA).

According to Nazarian et al (2013) research and regards to the development of financial markets and the importance of these markets and the close relationship with macroeconomic variables the use of advanced mathematical models with complex structures to predicting the market is quite acceptable. In addition, the neural network model in comparison to other advanced models due to its high accuracy have special place, so predict volatility of stock index in Tehran stock Exchange using the daily data of stock price index between 03.25.2009 to 22.10.2011 and the reducing model with the potential long-term memory, forward neural network model and also the combination of two model. The results reflect base on the evaluation criteria of prediction error, although, the feed forward neural network model has a smaller error than the reducing model with the potential long-term memory. But the accuracy of combined model is higher than either of these two models alone.

### 3.2 External research

Schumann and Lohrbach (1993) predict the next day stock price in Frankfurt market by Arima and artificial neural network models. They have used the 13 given daily data for 9 years. The data is the type of technical data, also they have used an artificial neural network with two hidden layers. As a result we can't prefer these two methods together.

Feransesko & Rakesh (2012) provided a model for the predicting volatility in stock market belonging to the five founding members of the Association of Southeast Asian Nations as ASEAN-5, using the model of asymmetric APARCH with the two different distribution T-Student and GED, the aim was identify the symmetry or asymmetry in the relationship between stock returns and market volatility in ASEAN-5 market. The used data in the model were from indigenous companies of the stock market on January 2, 2002 to January 30, 2012 and are included financial turnover and the value of traded stock. The results represent superiority APARCH model and the t distribution using the prediction measurement error.

Peter, Vladimir and Renata (2013) predict the stock price with considering the quantitative data and hidden feelings (lack of assurance in reports and related terms) in the annual report and using nervous network and regression method. The used data include profitability ratios and technical analysis variables is

collected from companies listed in the United States in 2010. The results showed that nervous networks provide better results especially when we consider hidden feelings in annual reports.

## 4 Research methodology

### 4.1 Research goal

In this study, the econometric model for panel data and neural network RBF are used to increase efficiency, reduce costs and fundamental analysis. So the main aim of the study is examining the accuracy of econometric model and neural network (RBF) to predict the stock price and the main question is:

Do forecast accuracy of stock prices using fundamental analysis and neural network (RBF) in the Petroleum products industry is higher than the econometric model?

### 4.2 Research hypothesis

The forecast accuracy of stock prices using fundamental analysis and neural network (RBF) in the Petroleum products industry is higher than the econometric model?

### 4.3 Population

The population is listed companies in the Tehran Stock Exchange for the Petroleum products industry during the years 2006 to 2012 that data for this study are available.

### 4.4 Sampling method

The sampling method are in this form that the companies that have not the following conditions are removed:

1 – The firms are accepted in the Tehran Stock Exchange before 2006.

2 - In the period of the study, the fiscal year have not changed.

3 - The sample companies have the basic financial statements for the years 2006 to 2012.

### 4.5 Collecting data methods and tools

The required information and data for this study has been collected using the information in the database from the Tehran Stock Exchange (Tadbirpardaz & Rahavardeh novin). The necessary information to analyze the economic situation collected from the Central Bank database. TOPSIS method is used to check the status of the industry.

### 4.6 Data analysis method

In this study, the econometric model for the panel data and RBF neural network are used to predict the stock price. Thus, in this section to the variables and used data, the analysis of implementation algorithm methods and evaluation criteria of models.

## 5 Research variables

As previously noted, in the fundamental analysis, first investors analysis and the market and economy as a whole to realize the best time for investing. Then they analysis some of the industries or economy whose future prospects are good. Finally, if the analyst conclude that the investment is appropriate and appropriate industries with high efficiency work in the economy cycle, they focus on firm analysis. The impact of the economic indicators on the industry has been studied through inflation based on the consumer index, exchange rate in open market, oil earning, volume of money and coin rate. Industries are ranked each year using TOPSIS methods and variables used for analysis of company include: Current ratio, quick ratio, current debt to equity ratio, debt to equity, debt to assets ratio, interest coverage ratio, quick asset turnover ratio, current assets turnover ratio, tangible fixed asset turnover ratio, gross profit margin, operating

profit margin, net profit margin, return on equity, return on assets, the ratio of price to earnings, ratio of book value to market value ratio, price to book value ratio, price to sales, book value of equity, return on equity, total current assets, total liabilities, earnings per share. Factor analysis was used to determine the most influential variables. In the factor analysis, the variables that have a correlation above 0.5 were in the one group and based on the eigenvalues calculated for each group combining variables were obtained (Jelif, 2002).

After determining the variables that have a correlation above 0.5 in a group, eigenvalues must be calculated to obtain combining variable. The matrix of eigenvalues which is obtained using EVIEWS7 software. The matrix of eigenvalues is multiplied by in the matrix variables that have high correlation and combining variables (PC s) is obtained.

**5.1 TOPSIS algorithm used in industry rankings**

Step One - normalizing decision matrix:

$$n_{ij} = \frac{r_{ij}}{\sqrt{\sum_{i=1}^m r_{ij}^2}} \tag{1}$$

The second step - the weighting to normalized matrix:

$$W = \{w_1, w_2, \dots, w_n\}$$

$$V = N_D \cdot W_{n \times n} = \begin{vmatrix} v_{11} & v_{12} & v_{1j} & v_{1n} \\ v_{21} & v_{22} & v_{2j} & v_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ v_{m1} & v_{m2} & v_{mj} & v_{mn} \end{vmatrix} \tag{2}$$

Step Three - Determine the ideal solution and negative ideal solution: Two virtual item A\* and -A are defined as follows:

$$A^* = \{(\max v_{ij} | j \in J), (\min v_{ij} | j \in J') | i = 1, 2, \dots, m\}$$

$$= \{v_1^+, v_2^+, \dots, v_j^+, \dots, v_n^+\}$$

$$A^- = \{(\min v_{ij} | j \in J), (\max v_{ij} | j \in J') | i = 1, 2, \dots, m\}$$

$$= \{v_1^-, v_2^-, \dots, v_j^-, \dots, v_n^-\}$$

$$J = \{j = 1, 2, \dots, n | j \in \text{benefit}\}$$

$$J' = \{j = 1, 2, \dots, n | j \in \text{Cost}\}$$

$$\tag{3}$$

Two virtually created options are the worst and the best solution.

Fourth step - obtaining measurements of distances:

$$d_{i+} = \left\{ \sum_{i=1}^m (v_{ij} - v_i^+)^2 \right\}^{0.5}; i = 1, 2, \dots, m \tag{4}$$

$$d_{i-} = \left\{ \sum_{i=1}^m (v_{ij} - v_i^-)^2 \right\}^{0.5}; i = 1, 2, \dots, m$$

Step Five - calculating the relative closeness to the ideal solution: This criteria is obtained by the formula:

$$c1_{i+} = \frac{d_{i-}}{(d_{i+} + d_{i-})}; 0 \leq c1_{i+} \leq 1; i = 1, 2, \dots, m \tag{5}$$

Step Six - Rating Options: finally, options are ranked according to the descending order.

In order to classify industries using TOPSIS, the variables such as return on equity, return on assets, EPS, P . E, stock return, current ratio, debt-equity ratio, operating profit margin and net profit margin are used. After using this method, Petroleum products, among the 10 industries classified on the Stock Exchange during the years 2006 to 2012 were ranked as follows in Table 1.

Table 1: Ranking the industry using TOPSIS method

Year	2006	2007	2008	2009	2010	2011	2012
ranking	7	9	10	3	2	2	10

**5.2 Algorithm using panel data:**

Panel data model can be demonstrated as follows:

$$y_{it} = \alpha_{i0} + \alpha_1 x_{1it} + \alpha_2 x_{2it} + \dots + \alpha_k x_{kit} + \epsilon_{it} \tag{6}$$

$$\epsilon_{it} = \mu_i + \lambda_t + v_{it} \tag{7}$$

$$c1_{i+} = \frac{d_{i-}}{(d_{i+} + d_{i-})}; 0 \leq c1_{i+} \leq 1; i = 1, 2, \dots, m \tag{8}$$

And here  $\mu_i$  and  $\lambda_t$  are imperceptible effects of individual and time respectively and  $v_{it}$  is residual for error component and in the matrix will be as follows:

$$y = \alpha_{NT} + X\beta + \epsilon \quad i = 1, \dots, N \quad t = 1, \dots, T \tag{9}$$

$$\epsilon = Z_\mu \mu + Z_\lambda \lambda + v \tag{10}$$

To implement for econometric model of panel data EVIEWS7 software is used.

**5.3 Neural Network Algorithm**

The used RBF neural network consist of an input layer (3 neurons), the middle layer (1 to 20 neurons) and output layer (1 neuron).

In Figure 1 the method used to complete the process is shown.

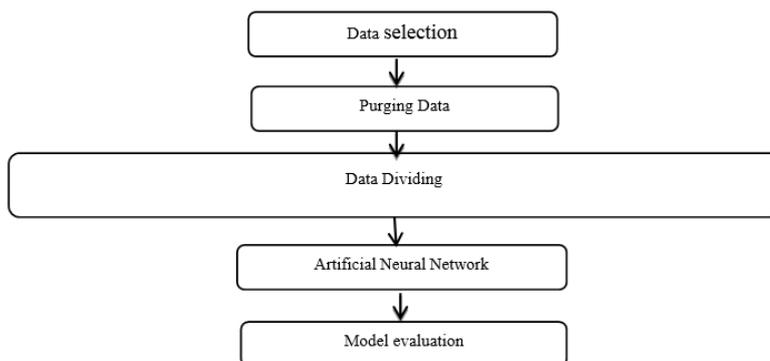


Figure 1: The process of Neural Network

After factor analysis and making appropriate and meaningful patterns the combining variable PC6 (Gross profit margin, Operating profit margin, EPS) were significant as accounting

variables in fundamental analysis using panel data econometric model are not Significant economic variables of hypothesis model.

Table 2: Descriptive statistics

Model	PC6	PS
number	35	35
Mean	1.7607	4896.2857
Median	1.6061	3927
Mode	0.46	1312
S.D	1.01728	3336.8675
variance	1.035	1113468.99

Table 2 shows the descriptive statistics of the variables in the model hypothesis, including: PS (stock price), and PC6 (Gross profit margin, Operating profit margin, EPS). Stock price is dependent variable and other variables are as independent variables. In this table, number represents the observations for each variable, the mean represents the mean of observations for each variable, median reflects the moderate of observations, mode represents the highest frequency of observations for each

variable, the standard deviation represent the deviation of the observation from the mean and variance is squared deviations from the mean of observations. To test for normality, standard error of skewness coefficient and Standard Error of Kurtosis are used. If the values of the indices are smaller than 2 - or greater than 2 +, the normality is rejected (Momeni & Faal Ghaiyoomi, 2012, 33). The results in Table 3 indicate that the variables are normally distributed.

Table 3: Standard error test

Model	PC6	PS
Number	35	35
standard error of skewness coefficient	0.398	0.398
Standard Error of Kurtosis	0.778	0.778

**5.4 Linearity**

A situation that indicates an independent variables is a linear function of other independent variables. To detect linearity two factors of variance inflation factor and tolerance were used. The minimum amount that can be a get variance inflation is one and this is in the situation that there is no linearity between the independent variables, whatever the value of this factor is greater than one, indicate better linearity between the independent variables. Also, linearity is serious when the amount of variance inflation factor is greater than 10. Regarding the variance

inflation factor values in Table 4, the linearity between the independent variables is very few and the tolerance level is greater than 0.4, which is good (Momeni & Faal Ghaiyoomi, 2012).

Table 4: The linearity between independent variables

Model	tolerance	Variance inflation factor
Independent variable PC6	0.954	1.048

Table 5 represents the mean residual is zero, which is underpinned by assumptions of regression.

Table 5: Statistical indexes in relation to the anticipated residual values

	Number of observation	S.D	mean	Max	min
Predicted Value	35	5814.5500	5603.6286	26762.8613	873.7574
Residual	35	2616.1055	0.00000	4748.56934	-8309.8623
The Predicted standardized value	35	1.000	0.000	3.639	-1.114
Standardized residual	35	0.955	0.000	1.733	-3.033

After considering the assumptions on the regression and preparing variables to build a model for selecting between integrated model and fixed effects model, the Chow test and for selecting fixed effects or random in panel data model Hausman test is used. This test has an asymptotic chi-square distribution

and degrees of freedom is equal to the number of explanatory variables (regression). According to the probability column in Table 6, the results of Chow test indicates panel data model is used. Hausman test is provided for selecting between random and fixed effects.

Table 6: Test F Chow

Hypothesis	Distribution	statistic	Degree of freedom	the probability
	F	16.1505	(4.30)	0.0024
	Chi-square	13.4579	4	0.0002

Table 7: Hausman test

Hypothesis	Statistic	Degree of freedom	the probability	the result
	0.000	3	1.000	Random effects

According to the column of Table 7, the probability is more than 0.5, so random effects model is accepted. According to results,

the stock price modeling by considering panel data model with fixed effects is summarized in Table 8.

Table 8: stock price modeling

Variable	The estimated coefficient	statistic t	probability
C	2535.794	4.2810	0.0002
PC6	222.3338	11.3963	0.0000
$R^2 = 0.730455$			
$\bar{R}^2 = 0.722287$			
$F = 0.000$			

As you see in above table, Note that the column probability is less than 5% for all variables, so all variables are significant and the model is suitable. The coefficient of determination represents the number of 0.7304, which represents the power produced to justify the model, it means the dependent variable is explained

by the independent variables by 73%; 73% change in the stock price depends on selected variables in the model. Also the calculated probability of F-statistic is less than 5%, so the model is valid. so the selected model for predicting is valid.

Price Stock=2535.794+222.3338\*PC6+ε

Table 9: Comparison of the models accuracy

model	Neural Network RBF	The type of error		
		RMSE	MAE	MAPE
	Neural Network RBF	1096.954	555.987	13.739
	econometric model of Panel data	1748.319	1327.093	52.436

After construction the appropriate model to predict stock prices, according to the prediction error criteria the research hypothesis were examined. As can be observed in Table 9, the criteria of RBF neural network is less than the econometric model. Therefore, the research hypothesis (higher RBF neural network accuracy in comparison to econometric model in forecast stock price in the Petroleum products industry) is confirmed.

## 6 Conclusion

Prices stock prediction in the exchanges can be considered one of the most important issues that facing by stakeholders. In this paper the stock price of Petroleum products industry were predicted using fundamental analysis and econometric model for panel data and artificial neural network RBF. Considering that fundamental analysis requires large volumes of information and time to learn all the basic elements, and often is costly and time consuming for split investors, thus, the econometric model for panel data and artificial neural network RBF were used to increase effectiveness, reduce costs in fundamental analysis methods. In the literature related to fundamental analysis the use of econometric models for panel data have been neglected to predict stock prices. The variables in selected models include, PC6 (gross profit margin, operating profit margin, EPS) were significant and determination of coefficient in model represents the power of a good justification of the model; also, the results of prediction in both models indicate a higher accuracy of (RBF) neural network into econometric model which is consistent with previous studies in the field of neural networks. Finally according to results, the selected model is proposed to help investment decisions.

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# THE RELATIONSHIP BETWEEN THE QUALITY OF MANAGEMENT FORECASTS OF EARNINGS AND QUALITY OF EARNINGS IN LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

<sup>a</sup>LEILA BALYAR, <sup>b</sup>ADEL SHAHVALIZADEH

<sup>a</sup> Department of Accounting, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran

<sup>b</sup> Department of Accounting, Ardabil branch, Islamic Azad University, Ardabil, Iran

Email: <sup>a</sup>Leili.balyar34@gmail.com,

<sup>b</sup>Adel.Shahvalizadeh.34@gmail.com

**Abstract.** Investors and financial analysts, regarded profit as one of the main criteria evaluating companies and tend to measure their company's future profitability to hold or sell their shares to make decisions; therefore profits expected, to judge the condition of a company. Considering that accurate predictions and timely, improve decision making by users of accounting reports. The aim of this study was to investigate the relationship between qualities predicts management of earnings and quality of earnings in the company has listed on the Tehran Stock Exchange. 164 companies over the 2010-2014, including the companies listed on the Tehran Stock Exchange have been tested. The findings suggest that there is a significant correlation between the management of earnings prediction accuracy and quality of earnings.

**Keywords:** accuracy profit forecast, profit forecast accuracy, earnings quality

## 1 Introduction

In today's world, accounting information systems play very effective role in the turnover of business activity. The majority of accounting information has reflected in financial reports. On the other hand, it has known as the center of the financial reports, essential financial statements. Financial Statements are of all the activities and events relating to a financial period (Harasani, 2010). Among the basic financial statements, profit and loss statements for containing index measure of economic activity, means profit, the focus of the whole range of such portfolios analysts, corporate executives and investors in the world. It is clear that profit status and importance are as an important item in the financial statements. However, focusing on the benefits and features it provides an incentive to manipulate and make a profit. Despite the phenomenon of profit management, which spread over the years but the protests were less and less confront, the concept of "quality of earnings" appeared. Since then it used in the spotlight users of financial information to have better understand the situation of the company and financial decisions. It is also important prediction is that the fundamental element and key decision makers within the organization and outside the organization. Accordingly, the efficiency and effectiveness of each decision depends on the results of events. Thus, effective and efficient decision made based on predictions that its basis is correct. One of these predictions is Prediction profit that should provide logical information, reliable, and should be understandable, and relevant. Time and accurate predictions improved decision making by users of accounting reports.

### 1.1 Statement of the problem

Assessment of opportunities and risks in business activity and task management supervision involves understanding the nature of business activity, including the potential profitability of profit. Overall, the appeal of studying the current state of a company, the company depends on its potential to generate future income. Now the company is profitable and profitability will continue in the future, it is more attractive than to the company soon reduced the potential profits. In general, it argued that the most important criterion for selecting companies for investment decision making of investors, current and future profitability of the companies; So that investors in different investment strategies, mainly due to elect corporate profits (Naderi, 2006). Investors and financial analysts, profit considered as one of the main criteria and evaluating companies tend to measure future profitability of the company to hold or sell their shares decisions; thus, the profits expected, to judge the condition of a company. Forecasts

earnings per share in investments are of great importance (Mashayekh, 2007). Such information is important as the accounting income and its components when the people take decisions. Calculate the firm's net income affected by the practices and accounting estimates, therefore, there is a possibility of earnings manipulation by management. Accounting profit calculated and organized based on accrual numbers. According to the accrual approaches, the revenue and costs can report the profit. Since the accrual basis necessarily identifying income and costs are not base on receiving and paying money forecasts and estimates used in calculating profit. Therefore, it should note that number when deciding how much could be trusted. Managers are interested in maintaining Profit Increase. Because the rewards are often dependent on the firm's profit. The most important group of shareholders who are users of financial statements, their interests are in search profit information. We are investigating to study the relationship between accuracy and predictability of profit management and quality of earnings. The most important focus of this research is on quality management earnings and quality of earnings.

### 1.2 Importance and necessity of research

Investment Development on the one hand attracted people investment and lead them to productive sectors of the economy. On the other hand, according to investors, the investments will directed towards industries that profit is more or less risk that ultimately leads to optimal allocation of resources. Directors' authority to act on the application of the principles and compliance and the use of estimates and forecasts are among the factors that affect earnings quality. On the other hand, for reasons such as may be retained in the company, rewards and other factors, the director intentionally or unintentionally portray the situation of the company desired. So corporate profits are reporting under the principles of quality and competent managers, so in this respect the importance of evaluating earnings quality and will provide. It is very important that visitors can also use the survey results to assess the impact of the predict directors and predict on earnings quality (of the money).

### 1.3 Research purposes

The main objective of this study was to investigate the relationship between the quality of management forecasts of earnings and profits is quality.

Secondary objectives are as follows:

1. The relationship between management earnings forecast validity and quality of earnings.
2. The relationship between management earnings forecast accuracy and quality of earnings.
3. The relationship between management earnings forecast horizon and earnings quality.

### 1.4 Hypotheses

The main hypothesis:

There is a significant relationship between the quality management forecasts of earnings and quality of earnings.

Hypotheses:

1. Is there a significant relationship between the prediction validity of earnings management and earnings quality?
2. Is there a significant relationship between the management earnings forecast accuracy and earnings quality?
3. Is there a significant relationship between the forecast horizon management earnings and earnings quality?

## 2 Literature of review

Damghani (2013) in their study entitled Strategic earnings announcement, the anticipated timing of management with respect to the results of hypotheses testing viewed that in the first

hypothesis, there is a significant inverse relation with the positive news since the announcement of earnings forecasts. Results related to control variables showed a significant correlation between predictions at the time fixed in holidays, and a significant inverse correlation between predictive validity predictions years ago with the announcement of this year's holidays. In relation to the second hypothesis, direct relation between positive news since the announcement of earnings forecasts and stock market existed in working days.

Basiri and Khanmohammadi (2013) in their study to evaluate the sustained growth of profits on stock price reaction to the feature's predictions earnings per share. Their results suggest that the sustained growth of profits on stock price reaction to the predictive characteristics affect earnings per share. In particular, the results showed that the capital market reaction to bad news and forecast earnings per share prediction horizon is different from other companies in companies with sustainable earnings growth.

Darabi and EmamJome (2014) in the study investigate the relationship of ownership structure on the accuracy of their earnings forecasts. The results of tests showed that the first hypothesis (there is a relation between ownership concentration and earnings forecast accuracy) and this hypothesis was confirmed. The second hypothesis (if the ownership of large shareholders are more the greater the accuracy of analyst earnings forecast by) and the third hypothesis (if the ownership of small shareholders' are more, the greater the accuracy of predictions profit-analysis) the second and third hypothesis were rejected.

Choi et al., (2008) showed that while short-term forecasts help investors had better predict short-term profits, these forecasts may help them better predict their future long-term profits. As a result, when the company predicts long-term (whether annual or quarterly), Future earnings response coefficient is higher. In addition, companies offering short-term forecasts predict higher future earnings responsible coefficient than companies without emissions.

Kim and Guiv (2010) assess the quality of their profits and stock returns with macroeconomic variables. They were accruals quality and earnings quality criteria and concluded that the quality of accruals addressing macroeconomic variables change. In fact, firms with low accruals quality, to the shock and macroeconomic developments are particularly vulnerable.

Dhu (2010) investigate the utilization of accruals to predict future earnings paid by management. The results of this study showed that managers generally stable in predicting benefit accruals overestimation addressing. In this study a negative relationship between forecasting errors and accruals managers of companies that profit forecast to a range (i.e., bases his prediction is between two numbers) would presented to; But this overestimation does not exist for companies that provide forecasts in the form of a certain sum.

Lee et al., (2011) showed that earnings management in stressed bankrupt companies with the lowest earnings quality was more

opportunistically, While non-stressed non-bankrupt companies with the highest quality profit and stressed non-bankrupt companies with low earnings quality, earnings management more efficient and tend (more work for non-stressed non-bankrupt companies). The results also showed that in predicting future profitability profit is better than the quality of earnings management.

Tattoo (2012), the study examines the relationship between the quality of financial reporting and payment information asymmetry. The results indicate that the increase in earnings quality and financial reporting quality leads to high clarity information environment and reduce information asymmetry associated with the company's shares in the market.

#### The population, sample and sampling

The study population included 670 companies listed in Tehran Stock Exchange during the years 1389 to 1393 the following sampling, screening and impose restrictions have been selected. First, we started with the first restrictions so that companies were examples of companies that should accept prior to 1388 in exchange; then, these firms should not be financial institutions and banks. So companies other than financial institutions excluded from these companies; then the companies should not loss money.

### 3 Method of research

The method used in this research is correlation method. Because there is a relationship between the variable of interest and then we also used two methods of descriptive and inferential statistics. Descriptive statistics with reference to the financial data collected and summarized information is then used inferential statistics for hypothesis research.

#### The method of collecting and analyzing data

The required data collected in the following ways:

Library method: This method employed for data gathering in the field of literature. Therefore, by studying books, articles, thesis and search the Internet sites, the required information was collected.

The collection of required data to test the hypothesis using the new software and websites outcomes of research has done.

Enter data arranged in Excel in the Eviews software, and then descriptive and inferential statistics related to research variables obtained. If our data is not normal, normalization methods used to normalize the data. Inferential statistics can include the mean, variance, standard deviation, coefficient of skewness, kurtosis coefficient, the number of observations, etc. and inferential statistics including significant tests of the model, the significance of individual regression coefficients, correlation and test research hypotheses.

Table (1): how to calculate the variables related to quality management earnings predictions

Variable names	How to calculate variables
The validity of management forecasts	Differences between actual EPS forecast
Accurately predict Management	$y_p$ :The first year earnings forecast x $y = \frac{y_p - y_o}{y_p} \times 100$ $y_o$ :The real benefits of X according to financial statements
Management forecast horizon	The time interval for predicted earnings per share offered by companies to the financial statements defined in days.

**4 Results of testing hypotheses**

**4.1 Main hypothesis testing and results**

The main hypothesis:

Regression models used to prove the original hypothesis would be as follows:

$$ACCR_{it} = \beta_0 + \beta_1 MFQ_{it} + \beta_2 Size + \beta_3 Lev + \beta_4 IO + \beta_5 PRO + \epsilon (1)$$

There is a significant relationship between the quality management forecasts of earnings and quality of earnings.

Table (2) main hypothesis test results

Variable name	Symbol	Coefficient factor	standard deviation	T-statistic	Prob.
Profitability	PRO	0.01	0.00	7.96	0.00
Quality management earnings forecast	MFQ	0.00	0.00	2.03	0.04
Financial Leverage	LEV	0.53	0.07	7.98	0.00
investment opportunities	IO	0.00	0.00	-2.89	0.00
size of the company	FIRM_SIZE	0.00	0.02	0.14	0.89
Fixed amount	C	0.34	0.10	3.54	0.00
F statistic					19.9296
Significance level					0
Durbin-Watson statistic					2.116116
Hausman test					46.28877
Significance level					0
The coefficient of determination					0.79
Adjusted coefficient of determination					0.74
Statistic F (Chow)					7.814187
Significance level					0

F statistic is less than the accepted level of error (5%) and total regression model is significant. To select the type of execution model (fixed effects and random effects) used the Hausman test, since less than 5%, significance level for this test so fixed effects model will be used for regression analysis. Durbin-Watson statistic ranges from 5.1 to 5.2, which indicates there is no correlation between the model errors. Due to the low level of probability (Prob.) and T-statistic of the level of acceptable error for the variable quality of management earnings forecast. So, the test results show that the variable quality of management

forecasts of earnings and quality of earnings was a significant correlation. The results of that study, among other control variables such as variables, Profitability, financial leverage, investment opportunities are significant relationship with the dependent variable earnings quality. The coefficient of determination and adjusted coefficient of determination shows the model variables explained 74 percent of dependent variable.

The main hypothesis remains regression

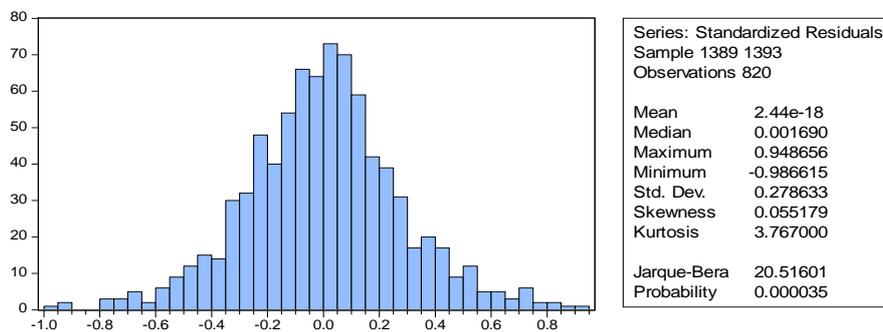


Figure (1) histogram distribution

**4.2 The first sub-hypothesis test and its results**

$$ACCR_{it} = \beta_0 + \beta_1 MFA_{it} + \beta_2 Size + \beta_3 Lev + \beta_4 IO + \beta_5 PRO + \epsilon (2)$$

Hypothesis 1)

There is a significant relationship between the earnings quality and the accuracy of management earnings forecasts.

Regression models used to prove the first hypothesis would be as follows:

Table (3) first sub-hypothesis test result

Variable name	Symbol	Coefficient factor	standard deviation	T-statistic	Prob.
Fixed amount	C	-1.10	0.28	-3.86	0.00
Profitability	PRO	0.01	0.00	5.47	0.00
Financial Leverage	LEV	0.21	0.10	2.17	0.03
investment opportunities	IO	0.00	0.00	0.95	0.34
size of the company	FIRM-SIZE	0.28	0.05	5.77	0.00
The accuracy of management forecasts	MFA	0.00	0.00	1.22	0.22
F statistic					9.025228
Significance level					0
Durbin-Watson statistic					2.119974
Hausman test					49.478157
Significance level					0
The coefficient of determination					0.699618
Adjusted coefficient of determination					0.6221
Statistic F (Chow)					19.679775
Significance level					0

F Limer statistical significance (Chow) is less than acceptable error, panel for panel data regressions model selected. F statistic is less than the accepted level of error (5%) and total regression model is significant. To select the type of execution model (fixed effects and random effects) used the Hausman test, since less than 5%, significance level for this test so fixed effects model will used for regression analysis. Durbin-Watson statistic ranges from 5/1 to 5/2, which indicates there is no correlation between the model errors. Due to the high level of probability, (Prob.) T-

statistic of the level of acceptable error for the variable prediction accuracy of the test results show that, there is not profit between the prediction accuracy of management and quality management. The results of that study, the control variables, firm size, financial leverage and profitability are correlated with the dependent variable.

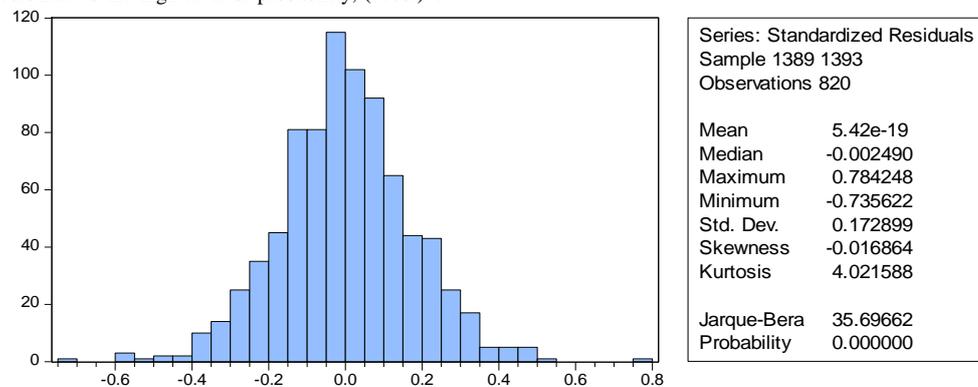


Figure (2) remains the distribution histogram of regression hypothesis

### 4.3 The second sub-hypothesis test and its results

Hypothesis 2)

There is a significant relationship between earnings quality and management earnings forecast accuracy.

Regression models used to prove the original hypothesis would be as follows:

$$ACCR_{it} = \beta_0 + \beta_1 MFE_{it} + \beta_3 Size + \beta_4 Lev + \beta_5 IO + \beta_6 PRO + \varepsilon \quad (3)$$

Table (4) second sub-hypothesis test results

Variable name	Symbol	Coefficient factor	standard deviation	T-statistic	Prob.
profitability	PRO	0.01	0.00	8.46	0.00
Financial leverage	LEV	0.54	0.07	8.14	0.00
Investment opportunities	IO	0.00	0.00	-2.92	0.00
Size of the company	FIRM-SIZE	0.00	0.02	0.17	0.87
The accuracy of profit forecast	MFE	0.04	0.02	1.79	0.01
Fixed amount	C	0.33	0.10	3.44	0.00
F statistic					19.71985

Significance level	0
Durbin-Watson statistic	2.107334
Hausman test	52.109651
Significance level	0
The coefficient of determination	0.699567
Adjusted coefficient of determination	0.622021
Statistic F (Chow)	7.86
Significance level	0

F Limer statistical significance (Chow) is less than acceptable error, panel for panel data regressions model selected.F statistic is less than the accepted level of error (5%) and total regression model is significant.To select the type of execution model (fixed effects and random effects) used the Hausman test,since less than 5%, significance level for this test so fixed effects model will used for regression analysis.Durbin-Watson statistic ranges from 5/1 to 5/2, which indicates there is no correlation between

the model errors.Due to the low level of probability (Prob.) and T-statistic of acceptable error level for management to predict accurately variable test results show that the prediction accuracy of earnings quality management and significant correlation.The results of that study,among the control variables, firm size, financial leverage and profitability are correlated with the dependent variable.

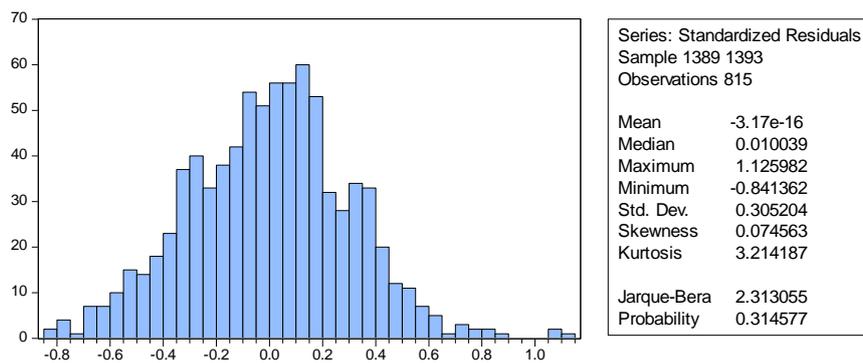


Figure (3) histogram distribution remains the second hypothesis regression

**4.4 The third sub-hypothesis test and its results:**  
Hypothesis 3)

Regression models used to prove the original hypothesis would be as follows:

There is a significant relationship between earnings quality and management earnings forecast horizon.

$$ACCR_{it} = \beta_0 + \beta_1 MFH_{it} + \beta_3 Size + \beta_4 Lev + \beta_5 IO + \beta_6 PRO + \epsilon \quad (4)$$

Table (5) third sub-hypothesis test results

Variable name	Symbol	Coefficient factor	standard deviation	T-statistic	Prob.
profitability	PRO	0.01	0.00	8.66	0.00
Financial leverage	LEV	0.55	0.07	8.24	0.00
Investment opportunities	IO	0.00	0.00	-3.00	0.00
Size of the company	FIRM-SIZE	0.00	0.02	-0.02	0.99
profit forecast horizon	MFH	0.00	0.00	-0.13	0.90
Fixed amount	C	0.36	0.11	3.26	0.00
F statistic					18.79012
Significance level					0
Durbin-Watson statistic					0.739492
Hausman test					105.68
Significance level					0
The coefficient of determination					0.103475
Adjusted coefficient of determination					0.097969
Statistic F (Chow)					7.900142
Significance level					0

F Limer statistical significance (Chow) is less than acceptable error, panel for panel data regressions model selected.F statistic

is less than the accepted level of error (5%) and total regression model is significant.To select the type of execution model (fixed

effects and random effects) used the Hausman test, since less than 5%, significance level for this test so fixed effects model will be used for regression analysis. Durbin-Watson statistic in the range of 5/1 to 5/2 is not to suggest that there is a correlation between the model errors. Due to the high level of probability (Prob.) and T-statistic of the level of acceptable error for the

variable prediction horizon management test results demonstrated that there is not a profit forecast horizon and quality management. The results of that study, among the variables of control, investment opportunities, financial leverage and profitability are correlated with the dependent variable.

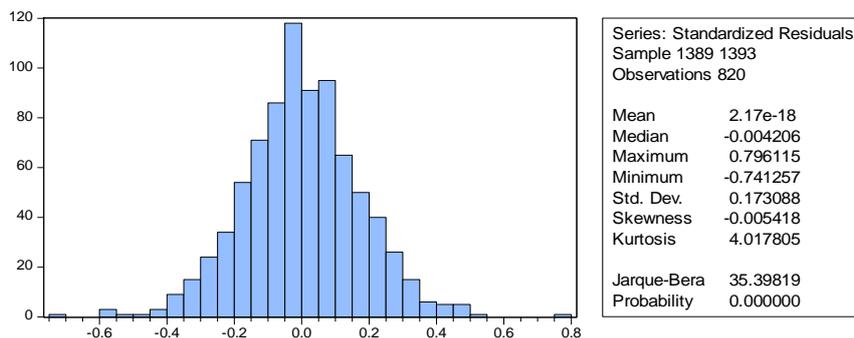


Figure (4) remains the distribution histogram regression third hypothesis

The results of data analysis and hypothesis testing

There is a significant relationship between earnings quality and predictions quality management earnings.

**4.5 Main hypothesis testing results and similar results**

Table (6): The main hypothesis and results of similar research

Researcher name, year	research title	Research results
KhaleghiMoghaddam and colleagues (2002)	Information Content of predict corporate profits	Research results confirm the relationship between stock returns and earnings forecast confirmed; So profit is expected to information content. As well as other research findings, show that There is a significant difference. The rate of abnormal stock returns (17 weeks along with weather forecasts).
existence Research	The effect of quality management earnings forecast on earnings quality	There is a significant positive relationship between the quality management forecasts of earnings and quality of earnings.

**4.6 The first sub-hypothesis test results and similar Research results**

First hypothesis: there is a significant relationship between the earnings quality and the validity of management earnings forecasts.

Table (7): results of the first sub-hypothesis and similar studies

Researcher name, year	research title	Research results
Akbari (2008)	The variables affecting the reliability of earnings forecast by management	The results show the relationship between forecast accuracy benefit in the prior period and the size of the company's profit forecast reliability by management approved.
Kato and others (2009)	Study of optional profit forecast by management of companies listed on the exchange in Japan	The results showed that, often the first prediction was actually more profit but forecast earnings during the year, adjusted and reduced. In addition, the average time and information to predicted, But companies with weak earnings forecast and managers with optimistic and weak forecasts have low information load and have low reliability.
Resent research	The effect on earnings quality management earnings forecast accuracy	The accuracy of management earnings forecast and there is no significant relationship between earnings quality.

**4.7 The second sub-hypothesis test results and similar Research results**

The second sub-hypothesis: there is a significant relationship between earnings quality and management earnings forecast accuracy.

Table (8): results of the second hypothesis and similar studies

Researcher name, year	research title	Research results
Namazi (2007)	To investigate the factors affecting the accuracy of management earnings forecast Companies listed on Tehran Stock Exchange	It Showed that there is a relationship between earnings growth, sales growth, asset growth, profit forecasts in the past, financial leverage, stock prices and profit forecast accuracy; But there is no relationship between the dividends paid and the size of company profit forecast accuracy. The results of multiple regression model showed that there is a relationship between financial leverage to accurately predict revenue growth and profit.
Mknvmy (2009)	Biased investigation and the accuracy of forecasting earnings forecast based on the provisions dealing with the Canadian Co-management	The results show that the forecast handled significantly positive bias (well realistic) than other surveyed had forecast. But about the accuracy of prediction, were not significant
Resent research	The effect on earnings quality management earnings forecast accuracy	There is a significant positive relationship between earnings quality and management earnings forecast accuracy.

#### 4.8 The third sub-hypothesis test results and similar Research results

The third sub-hypothesis: there is a significant relationship between management earnings forecast horizon and earnings quality.

Table (9): results of the third sub-hypothesis and similar studies

Researcher name, year	research title	Research results
Ravi Lonkani, Firth Michael (2005)	Factors Affecting the earnings forecast error on a company-by newcomer Thailand Stock Exchange	They variables are size, age, income dispersion coefficient and the time horizon is earnings forecast. The results showed that there is a positive relationship among variables such as firm size and time horizon predictions error of prediction profit profitable.
Resent research	Horizon predict effect on earnings quality management earnings	There is no significant relationship between management earnings forecast horizon and earnings quality.

## 5 Conclusion

The results of the original research hypothesis suggest that there is a direct relationship between the quality management forecasts of earnings and quality of earnings. Therefore, investors in investment companies invest the quality of management forecasts and profits that are higher; this indicates that the share of cash these companies are higher. so, the more accurately predict higher management earnings, higher earnings quality themselves. Therefore, in calculating the predictive accuracy of management earnings expected to and actual earnings for-money has agreed. So companies that accurately predict of profits are high, Profit expected to is not much different from actually happened profit. Therefore, these companies the right place for investment and risk-free.

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## THE EFFECT OF CAREER PATH ANCHORS AND CAREER PLATEAU ON EMPLOYEE'S PERFORMANCE IN TECHNICAL AND VOCATIONAL TRAINING CENTERS OF ARDABIL PROVINCE

<sup>a</sup>PEYVAND JOUHARCHI, <sup>b</sup>ESHAGH RASOULI

<sup>a</sup>Department of Management, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran

<sup>b</sup>Department of Management, Ardabil Branch, Islamic Azad University, Ardabil, Iran

Email: <sup>a</sup>peyvand.jouharchi.tr@gmail.com,

<sup>b</sup>EshaghRasouli12@gmail.com

**Abstract.** The current research seeks to examine the effect of career path anchors and career plateau on employee's performance in technical and vocational training centers of Ardabil Province. The research is applied in terms of objective, and it is a descriptive-correlative one in terms of methodology. The research population is comprised of all employees in the technical and vocational training centers in Ardabil city, which the size of population is equal to 330. Morgan table was used to determine the sample size, and based on the table; the sample size was calculated to be 177. Results suggest that the dimensions of career plateau (structural and content plateau) has a significant negative impact on employee's performance and dimensions of the career path anchors have significant direct impacts on employee performance.

**Keywords:** Career Path Anchors, Career Plateau, Performance, Technical and Vocational training centers

### 1 Introduction

Various perspectives have been presented on the performance. Employee's performance is a set of behaviors shown by individuals associated with the job, or it is the product or efficiency which by virtue of employment in the profession (including services, education, and manufacturing) can be obtained. Job performance is individual efficiency in terms of the duties prescribed by law, and it is the impact of human activities on the task that is assigned to him, and it expresses the amount of effort and success shown by an employee in carrying out job duties and behavioral assignments. In addition, job performance is the nature and method of carrying out the duties and responsibilities assigned by the expert (Rahnavard, 2008).

Performance means state or quality, function, and the process to explain effectiveness and efficiency of past actions. According to this definition, performance can be divided into two components: 1- The efficiency that describes organization's method to use the resources in the production of products or services, i.e. the relationship between real and ideal combination of inputs for producing specified outputs; 2-Effectiveness that describes the extent of achievement of organizational goals (Memarzade et al., 2008).

Employee's performance is affected by many variables that can reduce or increase performance. One of these factors is career plateau. Career plateau is a trap ahead of organization employees, and 99% of employee may suffer from this problem in their working history. According to Bardvik (1986), most of people become skilled within three years, and then the work becomes steady and monotonous, and there is not anything new to learn. In this case, the person feels helpless and knows its work valueless and unpleasant than the past.

The individual may face the attitudes and behaviors that could not work and his physical and mental health also falters. A career plateau is a point in one's career where the likelihood of progression is reduced. You may feel you have hit a plateau for a wide variety of reasons, such as reaching the highest possible level in your company; feeling restricted in your role; or no longer feeling challenged or engaged by your work. According to Gines and Germier, limited opportunities for promotion and the presence of strict rules and regulations cause a person to feel that he is caught in an unfair system, then the person feels negative thoughts about its job. Reinforce negative chronic conditions, sense of lack of progress in the life and career,

ensorious behaviors, frustration, indifference and negligence are among the signs of job burnout (Saatchi, 2007).

Today's staff more than ever people think and worry about their careers, and they demand secure, long-term and satisfying job, and want to grow in their jobs. On the other hand, employees often start their careers with hope and specific expectations to reach the highest level in the organization, and most of them attach significance to progress, power, highest responsibilities and rewards, but unfortunately the staff before achieving their goals suffer from career plateau (Michael and Wills, 2004).

The concept of career path as the link between the organizations and the people who work for them is examined from both interior and exterior aspects. Exterior career path includes positions and situations by which one can progress, and it defined in the form of organizational criteria of career path. However, interior career path is workers' tendency toward career orientation or career anchor (Arizi Samani et al., 2009). Career anchor was first coined by Edgar Schein. This term means employees' self-conception and is comprised of three main categories: 1) The talents and abilities to perceive ourselves 2) fundamental and important values, and 3) the evolved feeling about the motives and demands that are relevant to career path. According to the logic underlying career anchors, the consistency between job tendencies and working environment leads to job satisfaction, further commitment, and increased performance, otherwise, the result would be dissatisfaction and change of job. Career anchors are conscious attempts made by an individual to be informed of its skills, tendencies, values, opportunities, limitations, choices, and achievements, and also it is capability to recognize the objectives relevant to career and assign a program to achieve such objectives (Bermlı, 2004). The researcher's aim to perform this research was to assist managers in technical and vocational training centers to use the results obtained from the current research to improve organizational goals and ways to assist organizations to enhance employee performance to be able to specify the fact whether is there any consistency between career tendency and suitable work environment. The overall goal underlying the current research is to find an answer to the question that: what would be the impact of career path anchors and career plateau on the performance of the staff in the technical and vocational training centers in Ardabil Province?

### 2 Research Methodology

**A- Methodology:** the research statistical is comprised of all employees in technical and vocational training centers in Ardabil, which their number amounts to 330.

**B- Statistical population:** the research statistical population is comprised of all employees in technical and vocational training centers in Ardabil, which their number amounts to 330.

**C- Sample size and sampling:** the sampling method was a simple random one. Morgan table was used to determine the sample size, and based on the table, the sample size was calculated to be 177.

**D) Data collection and measurement tools:** data collection was done based a field-based procedure and a questionnaire.

**Career path anchors:** this concept is defined in the form of the following dimensions and indicators (Shine, 2006).

**Career plateau:** it has two basic dimensions including structural plateau and content plateau, which are measured using Taleghani Plateau Questionnaire (2010), and is comprised of 20 items.

**Performance:** employee's performance can be analyzed in three parts including 1-Anti-role performance (counterproductive), 2- role performance (task-based), 3-Eextra-role performance (organizational civic behavior) as follows.

1- Anti-role performance (counterproductive) is a score related to Bent and Robinson counterproductive Checklist, quoted from Bukhari et al. (2009), and has one dimension to evaluate behaviors, and 11 items and is measured based on a distance-oriented scale.

2- Role performance (task-based) is a score related to Williams & Anderson's Questionnaire (2004), and has one dimension, and is measured based on Likert scale.

3-Eextra-role performance (organizational civic behavior) based on Netemeyer at al.'s Questionnaire (1997) is measured in terms of the four dimensions including sportsmanship, civic behavior, conscienceless, and altruism.

**E) Validity and reliability:** validity is ability to measure the relevant characteristics and attributes using measurement. To determine content validity, the questionnaire was distributed among the professors and experts practicing in the area of management and behavioral sciences, and they were asked to present their opinions on the questionnaire's validity. In the current research, the questionnaire's reliability for the dependent variable and each of the independent variables was calculated using Cronbach's alpha, and alpha for all of them was higher than 0.77.

**F) Data analysis method:** in this research, to extract information and their analysis, the SPSS was used.

**3 Findings**

Table 1: A summary of the correlation regression model between career path anchors and employee's performance

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
0.683 <sup>a</sup>	0.557	0.631

Based on the results obtained from Table 1, the correlation coefficient between career path anchors and employee's performance is 0.68, and the coefficient of determination is 0.55

Table 2: The results obtained from regression analysis model between career path anchors and employee's performance

Components	Non-Standard Coefficients		Beta Standard Coefficient	t	Sig.
	B	Standard Deviation			
Constant Value	2.645	0.309		8.558	0.000
Career Path Anchors	0.208	0.189	0.683	11.098	0.000

To determine the impact of the variable namely career path anchors as the predictor variable and the variable namely employee's performance as standard variable, these variables were analyzed using multi-variable regression analysis in an

inclusion manner. As it can be seen in Table 2, the value of observed p is significant, and the results indicate that its beta is 0.68.

Table 3: A summary of the correlation regression model between career plateau and employee's performance

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
-0.793 <sup>a</sup>	0.629	0.627

Based on the results obtained from Table 3, the correlation coefficient between career plateau and employee's performance is -0.79, and the coefficient of determination is 0.62.

Table 4: A summary of the results obtained from regression analysis model between career plateau and employee's performance

Components	Non-Standard Coefficients		Beta Standard Coefficient	t	Sig.
	B	Standard Deviation			
Constant Value	-0.247	0.150		-11.647	0.001
Career plateau	-0.885	0.051	-0.793	-17.240	0.000

To determine the impact of the variable namely career plateau as the predictor variable and the variable namely employee's performance as standard variable, these variables were analyzed

using multi-variable regression analysis. As it can be seen in Table 4, the value of observed p is significant, and the results indicate that its beta is -0.79.

Table 5: A summary of the correlation regression model between career path anchors and career plateau

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
-0.593 <sup>a</sup>	0.559	0.633

Based on the results obtained from Table 5, the correlation coefficient between career path anchors and employee's

performance is -0.59, and the coefficient of determination is 0.55.

Table 6: A summary of the results obtained from the regression analysis between career path anchors and career plateau

Components	Non-Standard Coefficients		Beta Standard Coefficient	t	Sig.
	B	Standard Deviation			
Constant Value	3.226	0.277		11.656	0.000
Career path anchors	-0.509	0.869	-0.593	-11.233	0.000

To determine the impact of the variable namely career path anchors as the predictor variable and the variable namely career plateau as standard variable, these variables were analyzed using

multi-variable regression analysis. As it can be seen in Table 6, the value of observed p is significant, and the results indicate that its beta is -0.59.

Table 7: The results obtained from Pearson Correlation Coefficient to determine the relationship between career path anchors and employee's performance

Dimension of Career Path Anchors	Statistics	Staff Performance
Technical-Functional Merit	r	0.546**
	sig	0.000
Management Competency	r	0.258**
	sig	0.000
Security and Stability	r	0.291**
	sig	0.000
Entrepreneurial Creativity	r	0.111
	sig	0.142
Independence and Autonomy	r	0.405**
	sig	0.000
Dedication and sacrifice	r	0.129
	sig	0.088
Mere Challenges	r	0.273**
	sig	0.000
Lifestyle	r	0.304**
	sig	0.000
Career Path Anchors	r	0.383**
	sig	0.000

\*The test's significance at the level 0.05, \*\* The test's significance at the level 0.01

Based on the results obtained from Table 7, the significance level of the test error for confidence level is less than 0.99, and less than 0.01. Thus, it can be said that, other than the variables namely entrepreneurial creativity and sacrifice and dedication, other hypotheses are confirmed, and the correlation coefficient

between employee's performance and technical-functional competency is 0.54, management competency is 0.25, security and stability is 0.29, independence and autonomy is 0.40, mere challenges is 0.27, lifestyle is 0.30, and career path anchors is 0.38.

Table 8: The results obtained from Pearson Correlation Coefficient to determine the correlation between career path anchors and employee's performance

Variables	Statistics	Employee's performance
Structural Plateau	r	-0.713**
	sig	0.000
Content Plateau	r	-0.734**
	sig	0.000
Career Plateau	r	-0.793**
	sig	0.000

\*The test's significance at the level 0.05

\*\* The test's significance at the level 0.01

Based on the results obtained from Table 8, as the significance level of the test error for confidence level 0.99 is less than 0.01, thus, it can be said that, the ninth and tenth hypotheses and also the second hypotheses are confirmed, and there is a direct and

significant correlation between the dimensions of career plateau and staff performance. The correlation coefficient between employee's performance and structural plateau is -0.71, content plateau is -0.73, and career plateau is -0.79.

Table 9: A summary of the regression model of career path anchors in staff performance

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
0.665 <sup>a</sup>	0.443	0.416

Based on the results obtained from Table 9, the correlation coefficient between career path anchors and employee's

performance is 0.66, and the coefficient of determination is 0.44.

Table 10: The results obtained from the regression analysis between the dimensions of career path anchors and employee's performance

Components	Non-Standard Coefficients		Beta Standard Coefficient	t	Sig
	B	SD			
Constant Value	3.340	0.359		9.293	0.000
Technical-Functional Merit	0.076	0.131	0.060	0.578	0.564
Management Competency	0.210	0.102	0.197	2.067	0.040
Security and Stability	0.323	0.104	0.229	3.111	0.002
Entrepreneurial Creativity	0.132	0.096	0.143	1.368	0.173
Independence and Autonomy	0.145	0.143	0.100	1.013	0.312
Dedication and sacrifice	0.158	0.085	0.248	1.860	0.005
Mere Challenges	0.498	0.161	0.366	3.088	0.002
Lifestyle	0.547	0.081	0.484	6.716	0.000

To determine the impact of the variables including technical-functional competency, management competency, security and stability, entrepreneurial creativity, independence and autonomy, dedication and sacrifice, mere challenges and lifestyle as predictor variables and the variable namely staff performance, multi-variable regression analysis was applied. As can be seen in Table 10, the value of p observed in all variables other than

technical-functional competency, entrepreneurial creativity, and independence and autonomy is significant, and the results indicate that the variables management competency (BETA=0.19), security and stability (BETA=0.22) dedication and sacrifice (BETA=0.24), mere challenges (BETA=0.36), and lifestyle (BETA=0.48) can predict the variable namely staff performance.

Table 11: A summary of the regression model between career plateau and staff performance

Correlation Coefficient	Coefficient of Determination	Adjusted Coefficient of Determination
-0.794 <sup>a</sup>	0.631	0.626

Based on the results obtained from Table 11, the correlation coefficient between career path anchors and employee's

performance is -0.79, and the coefficient of determination is 0.63.

Table 12: The results obtained from the regression analysis between career plateau and staff performance

Components	Non-Standard Coefficients		Beta Standard Coefficient	t	Sig.
	B	Standard Deviation			
Constant Value	-0.260	0.151		-1.716	0.088
Structural Plateau	-0.401	0.061	-0.404	-6.558	0.000
Content Plateau	-0.487	0.064	-0.466	-7.575	0.000

To determine the impact of the variables including structural and content plateau as predictor variables, and the variable namely employee's performance as standard variable, multi-variable regression analysis was applied. As can be seen in Table 12, the value of p observed at both variable is significant, and the results indicate that the variables structural plateau (BETA=-0.40), content plateau (BETA=-0.46), can predict staff performance, and content plateau (BETA=-0.46) can predict staff performance, and structural plateau with the BETA -0.40 is at its minimum level.

#### 4 Discussion and conclusion

One of the organizational challenges in the area of careers is the lack of appropriate insight in relation to capabilities and incentives that can actualize potential professional success. In fact, people do not have a good understanding of their career anchors. Lack of attention to career anchors by managers leads to forced labor in the organization, i.e. managers recruit manpower without considering their skill, interests and motivations, and this creates a gap between individual and organizational goals, and the employees may show reluctance to their jobs. Under this condition, employees may have not proper performance in their job, and they may be indifference to success in their career and this can lead to career plateau. As we know, human resources are one of the most valuable assets of any organization, because other factors such as technology, capital, etc. are related to human resources. Despite modern

technological advances, there is no factor that can replace human power, and human is still a key factor within the framework of organizations, and management should identify this capital and nurture its hidden potential and utilize it to progress the organization for the effective achievement of goals. However, if such asset suffers from career plateau, it loses its performance and efficacy, and organization may encounter unexpected negative results in the future. Based on the results obtained, career path anchors including functional-technical merit, management competency, security and stability, entrepreneurial creativity, independence and autonomy, dedication and sacrifice, mere challenges, and lifestyle and the dimensions of career plateau (including structural plateau and content plateau) can significantly influence the performance of the staff in the technical and vocational training centers in Ardabil city. Based on these results, the following recommendations are presented:

1- Managers of the technical and vocational training centers in Ardabil are recommended to elect the managers who benefit from management anchor, are more willful and enthusiastic to accept the liabilities assigned for accomplishing relevant tasks, behave the issues in an effective and analytic manner and seek to find an opportunity to use their management capabilities.

2- Managers of the technical and vocational training centers in Ardabil city are suggested to provide a fertile context in which the employees can have more freedom, thus to nurture their creativity.

3- Another recommendation is to hold cultural seminars and development of ethical components such as truth, honesty, trustworthiness, and respect.

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## INFLUENCE OF EMOTIONAL QUOTIENT ON DECISION-MAKINGS OF INDIVIDUAL INVESTORS ACTIVE IN TEHRAN STOCK EXCHANGE

<sup>a</sup>NEMAT MEHDIZADE, <sup>b</sup>BEHNAM AZADI

<sup>a</sup>*Department of Accounting, Ardabil Branch, Islamic Azad University, Ardabil, Iran*

<sup>b</sup>*Department of Accounting, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran*

Email: <sup>b</sup>neamat1363@gmail.com

**Abstract.** This research aims to investigate influence of Emotional Quotient (EQ) on decision-makings of individual investors active in Tehran Stock Exchange. In this study, according to nature of subject of the research, the survey method was used. Statistical population of the study includes individual investors of Tehran Stock Exchange and sample was chosen 360 people active in the Exchange. In this study, Bar-On Emotional Quotient Questionnaire and Tony Brid's Questionnaire of Investors' Decision-making Indexes were used. Results indicated that emotional quotient has a positive influence on decision-making of individual investors.

**Keywords:** emotional quotient, decision-making of investors, Tehran Stock Exchange

### 1 Introduction

Perhaps all of dealers in Tehran Exchange have observed sentimental behaviors and mental excitements of stock market over and over and even they have made many mistakes in investment by following mental environment. The interesting point is that investors mostly repeat these mistakes and seek their reasons while they neglect that praxeology or in other words psychology of stock market is considered as an expertise for which now in valid universities all over the world district subjects and schedules are considered in financial majors. In fact, all over the world and of course in two recent years in Iran, in stock market psychology has been overarched as an auxiliary tool along with scientific (substantial and technical) analysis for decision-making of investors so that many investors and active persons in Iranian Stock Market tend to learn psychology along with learning techniques such as substantial and technical analyses (Baghbani, 2011).

According to modern investors theory, dealers and generally active people in stock markets take their decisions based on rationality and this assumption leads that all information related to innate value of securities reflects in their price through 'invisible hand of market' (Roshangar and Ahmadi, 2011).

In other words, according to this perspective, prices of stock reflect all information related to future cash flows of each share. This perspective is called 'market efficiency' which based on it attempt to earn efficiency is useless through technical and substantial analyses (Shahbazi et al, 2013).

On the contrary of rationality assumption, financial praxeology believes that men are influenced by a wide range of emotions and mental forces while making a decision which can effect on their rationality. Therefore, influenced by these factors, price of properties can take some distance from their innate value. Researchers have tried to identify and analyze common behavioral patterns among active people in financial markets (Baghbani, 2011).

Behavioral financial decisions are for considering cognitive and sentimental components which influence on the process of an individual's decision-making and expand over the assumption of rational thoughts while considering different conditions or decisions. In the discussion related to behavioral financial decisions, as mentioned emotional effects play role in investing decisions.

After investing previous researches, to present evidences from this natural relation, Cemdoll and Montgomery (1997) stated that sentiments act as an integral component through all the process of decision-making. These include factors before decision-

making and also factors after it. Therefore, mistake in decision-making may be resulted from cognitive mistake and or emotional effects or both of them. This indicates that goodness of emotions of an investor can influence on his/her decision-making.

Slovick (2010) stated that most of aspects of analysis of investment are naturally mental. It is clear that assessing men's abilities to incorporate information in judgment or decision-making is one of such aspects. Ecrloof about importance of psychological elements in economy believes that feeling and supposition of an individual from himself affects on consequences of economy (Ecrloof and Conton, 2000).

One of the most important cognitive factors influencing on a person's decision-making is emotional quotient (EQ) (Cemdoll and Montgomery, 1997).

Emotional Quotient refers to some abilities, for example, a person can keep his stimulus and tolerate against diversities, control his impulses and postpone success, align his mental states and does not allow disturbance blemish his thought (Mirdrikvandi, 2011).

Therefore, related to investing hypothesis based on value in stock market, those who have learned their psychological lessons well and activate based on this principle, know negative and unflavored positions of market as golden opportunities and not scary threads for themselves and use them best. Therefore, this study aims to investigate influence of emotional quotient on decision-making of individual investors active in Tehran Stock Exchange in order to identify and investigate existing scientific and practical vacuums.

### 2 Practical background of the research

#### 2.1 Domestic background

In a research by Ahadi and his colleagues (2009) investigated the relationship between emotional quotient, document style and self-efficiency with satisfaction from life of employed women and concluded that there is a medianingful positive relationship between emotional quotient and self-efficiency with satisfaction from life. Also, they indicated that self-efficiency has the ability to predicate satisfaction from life.

- According to Keramati et al. (2009), in the investigation to find the relationship between emotional quotient and strategies of managers' conflict management, there is a positive and significant correlation between emotional quotient and resolvism strategy. Among experienced managers there was a negative and medianingful relationship between emotional quotient and strategy of control and lack of opposition. In addition, there is a medianingful difference between emotional quotient and kind of the strategies used by male and female managers.

Khusrasgani (2005) in this research has investigated dominant styles of investors in Tehran Stock Market. Results show that decisions of investing are not only influenced by economic and rationality indexes, but also by components such as investing horizon and amount of risk tolerance and such components have significant effects on behavior of decisions of investors.

Shahrabadi (2007) has introduced behavioral and financial domain and has posed its use in Stock Exchange. Results indicate that behavioral financial and what is discussed in psychology introduce men's behavior better and says men are influenced by behavioral biases although he is very reasonable. These biases cause limit cognition or biased cognition of fact and as a result leads to unreasonable reactions.

Nikumaram and Saeedi (2008) investigated possibility of predicting efficiency through this index based on index of emotions of stock market. Results indicated that possibility of predicting efficiency is verified via this index. In this study, using regression, the relationship between cash efficiency index and price of Tehran Stock Exchange and index of investigating behavior of investors was tested. Also, in this study, using Grenger's causality test, this result was verified that sentimental index is cause of changes in total efficiency of Tehran Stock Exchange and in other words, ability of explanatory of efficiency changes by emotions index (index of behavioral reaction of stock market) was verified.

## 2.2 Foreign background

According to Lahm and Cerby (2002), emotional quotient, modification of feelings and emotional understanding influence on functional effectiveness of an individual even more than what one can obtain only by 'General Quotient'. The authors have described general quotient as an individual's ability to obtain initial knowledge and use it in new positions. In relation to emotional quotient, Lahm and Cerby considered three adjective of sentimental argument based on Maier and Saloy's explanation about emotional quotient. The first investigated adjective which was focus on understanding feelings and the second emotional adjective was an individual's ability to understand conditions and emotional events and the final adjective proceeds to the way persons modify their feelings while it was verified that general quotient is important in mental activities. Also, it was revealed that emotional quotient has positive influence on individual's mental function.

Troy Betards (2010) indicated that there is no meaningfulness relationship between indicator biases, mental accounting and risk aversion about general loss with emotional quotient or its components. Also, several verifications were found for indicating biases and mental accounting in item level. In this research, 148 undergraduate students and faculty members participated from two private universities in Central United States. In attempt to identify the relationship between different investment biases and different components of emotional quotient, parametric and non-parametric analyses were used. Also, findings showed that generally women more than men are challenging with indicating bias and in item level. In addition, results indicated that the youngest participants significantly have lower points than their professional counterparts in general emotional quotient and intra-personal components and its adaptability.

Benartsi and Tallor (1991) indicated that many risk-averted people were more possible to take risk if their properties instead of return of annual property would come back to more than a long-term time framework such as 30 years on the average. This kind of judgments of investigator was not static and did not lead to favored results. Mental accounting causes the investigators operate in conservative manners with avoiding every position so that assessing separate position was more than assessing property.

Shefrin (2000) stated that behavior of a person can be different because there is dependency to the fact that how information is presented or interpreted in many cases. This behavior can affect decision-making of investors. Two ambiguous framework

worries which are considered are mental accounting and risk-taking.

Researches performed by Scot Scotplomalov (2000-2001) provided more verification to use emotional quotient in doing cognitive affairs. Investigated persons in researchers' study were identified in three groups of problems to be proceeded to. Problem groups 1 and 3 have three average levels of complexity related to them while the second group was identified as problem group. This study indicates that those who were successful in Group 1 in dealing with average problem issues are those who are higher emotional quotient. Even after dealing with the second group of hard problems, those who have higher emotional quotient have been more effective in facing with final problem group.

## 3 Methodology

Methods to collect data were in library (gathering texts and contents using books, articles, publications, etc.) and field (as interview, observation and questionnaire) manners. To collect information, two main methods are used, first to explain theoretical literature of a research it is tried to collect theoretical bases using library method, and then to study theoretically, data was gathered using data questionnaires required to analyze hypotheses of the research.

Statistical population includes individual investors of Tehran Stock Exchange. Because number of individual investors in Tehran Stock Exchange is not available, it is taken into account as an unlimited society. To determine sample volume, tables of Morgan and Cerjsi were used. Based on these tables, number of samples for an unlimited society was considered 384.

Of course, in practice and due to have more confidence and increase of accuracy, volume of sample was considered 360 people. Data used to this research was collected by two questionnaires: (1) Standard Bar-On Emotional Quotient Questionnaire including 51 questions which has been standardized in Iran by Samui (2006) and its reliability was reported 87%; and (2) Tony Brid's (2010) Questionnaire of investors' Decision-making Indexes.

Validity and reliability of this questionnaire were verified by Jalili and his colleagues (2014) in Iran. It reliability was reported 75%. Analysis method was used in two kinds of descriptive and inferential. In descriptive part, diagram, percentages, median, mean, standard deviation etc. were used and also in inferential part to analyze hypothesis of research, simple linear regression was utilized by spss software.

## 4 Findings

### 4.1 Descriptive statistics

#### 1- Major of investigated people

According to Table (1), from 360 investigated people, 336 persons (93.3%) have answered to this question. Among these 336 people, 72 persons' (21.4%) major was management, 87 persons (25.9%) accounting, 47 persons (14%) economy, 11 persons (33%) technical and 19% persons (5.7%) medicine.

Table 1- Frequency percentage of major of the investigated people

Major	Frequency	Percentage	Correct percentage	Cumulative Percentage
management	72	20	21.4	21.4
accounting	87	24.2	25.9	47.3
economy	47	13.1	14	61.3
technical	111	30.8	33	94.3
medicine	19	5.3	5.7	100
total	336	93.3	100	

Without answer	24	6.7		
Sum total	360	100		

2- Degrees of the investigated people

were undergraduates, 152 persons (42.2%) graduate and 14 persons (3.9%) Ph.d.

According to Table (2), 360 people answered to the questions. From 360 people who were investigated 194 persons (53.9%)

Table 2- Frequency percentage of degrees of the investigated people

Degree	Frequency	Percentage	Correct percentage	Cumulative percentage
undergraduate	194	53.9	53.9	53.9
graduate	152	42.2	42.2	96.1
Ph.d	14	3.9	3.9	100
Total	360	100	100	

3-Experience level of the investigated people

least investment experience, 79 persons (22.4%) had average investment experience and 19 persons (5.4%) had significant investment experience.

According to Table (3), from 360 people 352 persons answered to this question. Among 352 people, 131 persons (37.2%) were without investment experience, 123 persons (34.9%) had the

Table 3- Experience level of the investigated people

Experience level	Frequency	Percentage	Correct percentage	Cumulative percentage
Without investment experience	131	36.4	37.2	37.2
Minimum investment experience	121	34.2	34.9	72.2
Average investment experience	79	21.9	22.4	94.6
Significant investment experience	19	5.3	5.4	100
Total	352	97.8	100	
Without answer	8	2.2		
Sum total	360	100		

4- Descriptive statistics of independent and dependent variables

standard deviation is 25.64. Also, mean of individual decision-making was calculated 26.06, its mean was 26, its index was 28 and its standard deviation was 4.23.

According to Table (4), mean of emotional quotient was calculated 158.98, its median was 163, its index is 156 and its

Table 4- Descriptive statistics of independent and dependent variables

Variables	Mean	Median	Index	Standard deviation	Skewness	The least	The most
emotional quotient	158.9806	163.0000	156	25.64852	-2.077	34	203
Individual decision-making	26.0250	26.0000	28	4.23106	-0.825	11	35

#### 4.2 Inferential statistics of the research:

Investigation of hypothesis of the research:

- Emotional quotient influences on decision-making of individual investors active in Tehran Stock Exchange.

dependent variables. To consider linearity of data and flatness of the model, variability diagram and analysis of regression variance were used. According to Table (5), because meaningfulness level of E test is less than 0.05 and diagram is linear, therefore this condition held true.

To investigate this question of the research, linear regression was used. But using this method has its own conditions. One of its most important conditions is linearity of independent and

Table 5- Analysis of regression variance to investigate flatness and linearity of data about emotional quotient and decision-making of individual investigators

Model	Sum of squares	Degree of freedom	Mean of squares	F	Meaningfulness level
Regression	780.433	1	780.433	49.483	0.000
remained	5646.342	358	15.772		
total	6426.775	359			

Also, based on the results obtained from Table (6), one can predict decision-making of individual investors based on emotional quotient on level 0.000. That is, emotional quotient has positive effect on decision-making of individual

investigators and shows that the higher is the mark of a person in emotional quotient test, the more is the decision-making of individual investors (figure 1).

Table 6 – Results from analyzing regression coefficients to investigate power of prediction of decision-makings of individual investors based on emotional quotient

Model	Non-standard coefficient		Standardized coefficient		
	B	Standard error	$\beta$	T amount	Meaningfulness level
Static coefficient	16.886	1.316		12.832	0.000
Emotional quotient	0.057	0.008	0.348	7.034	0.000

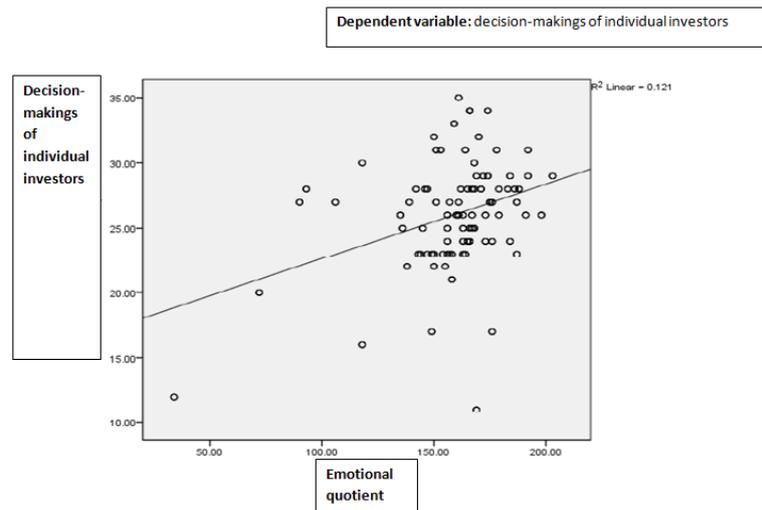


Figure 1- Investigation of linearity of the relationship between decision-makings of individual investors and emotional quotient

## 5 Discussion and conclusion

Results indicated that emotional quotient effects on decision-makings of individual investors positively. Conclusion of this research corresponds with conclusion of Bontmpo's researches (2010) which indicated that there is a meaningful relationship between emotional quotient and bias. Discovering representativeness occurs when an individual decides to abbreviate some information which knows from an especial item. For example, when an investor makes relationship between different cases of investment and existing information, if the relationship is incorrect, decision-maker will be faced with tendentious reactions resulting from a weak relationship and will judge wrongly.

Shefrin (2000) believes that when individuals' judgment is based on stereotype, a kind of discovering representativeness will occur. According to the result of this research, one can say personal and internal characteristics of people such as shyness, bashfulness and emotionality have no effect on discovering representativeness of Exchange's people and in this case it was concluded that those who are shy and bashful cannot be among investors. Conclusion of this research corresponds with conclusion of Troy Betard's research (2010).

The present study investigated that whether there is a relationship between emotional quotient and investor's decision-making or not. While further survey of the hypotheses presented at this study is required, a natural progress in this research can be to determine this issue that whether performance of investor is influenced by emotional quotient and decision-making or not. Therefore, future researches should investigate that whether there is such a relationship or not. Future studies should especially consider effect of experience of investor and his age on his ability to overcome bias of investment. The present

research found verifying evidences that indicate they affect on a person's ability to overcome bias of investment but it is not possible to determine that whether age, experience of investment and or both of these factors are related to these differences or not.

In an attempt to identify this important factor, future researches should investigate influence of age and experience of investment. Therefore, other studies are required to identify the methods which can help people to overcome biases of investment,

Investigating emotional quotient toward investment biases has been based on such approach. Other researches are necessary to correctly identify the factors which by using it investors can effectively minimize influence of behavioral biases.

## 6 Recommendations for future researches

- Investing effect of variables of emotional quotient on decision-making of managers of organizations;
- Investing effect of other variables effective on investment decision-making;
- Assessing validity of investment decision-making questionnaire and domesticating it consistent with Iran

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## THE RELATIONSHIP BETWEEN PROPOSALS AND A COMPREHENSIVE QUALITY MANAGEMENT SYSTEM WITH THE MEDIATING ROLE OF ORGANIZATIONAL CITIZENSHIP BEHAVIOR (CASE STUDY IN ARDABIL AGRICULTURE ORGANIZATION)

<sup>a,b</sup>SEYYED HASAN MIRNEZHAD, <sup>c</sup>\*SAMAD JABBARI ASL

<sup>a</sup> Department of Management, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran

<sup>b</sup> Department of Management, Ardabil Branch, Islamic Azad University, Ardabil, Iran

<sup>c</sup> Department of Management, Astara Branch, Islamic Azad University, Astara, Iran

Email: <sup>a</sup>seyedhasanmirzanezhad@gmail.com,

<sup>c</sup>SamadJabbariAsl12@gmail.com

**Abstract:** The aim of this study was to investigate the relationship between recommendations and comprehensive quality management system with the mediating role of organizational citizenship behavior (studied at the Organization of Ardabil province) is. Morgan is also used to determine the sample size sample size of 274 is under the table. Finally, 270 questionnaires were returned and analyzed. Data collected from standard questionnaires OCB MOGHIMI (2005) standard questionnaire recommendation system Sohrabi (2013) and total quality management standard questionnaire MOGHIMI (2009) to analyze the data using SPSS software to analyze assumptions of correlation and regression coefficient is used. The results show that the recommendation system and total quality management Agriculture Organization There is a significant positive relationship.

**Keywords:** suggestion system, total quality management, organizational citizenship behavior, the role of mediator

### 1 Introduction

The system offers one of the most important tools is continuous improvement.

The system offers grounds for participative management and organizational citizenship behavior which unfortunately, for various reasons cooperative system and offers not find their place in our country. Today, organizations in a dynamic environment, ambiguous and changing work and one of the salient features of the modern era, profound and persistent changes in the social and cultural conditions (such as changes in mentality, ideology, social values), political, economic, technological and transnational occur (Hodavand M. et al., 2012).

The results of various studies indicate a very positive effect on individual performance and organizational citizenship behavior. Many organizations try to improve their organizational performance to have comprehensive quality management principles. TQM is a management approach that helps organizations improve performance by strengthening problem-based organization achieves quality. TQM is a system based on human resources, which tries to increase customer satisfaction and reduce the cost of operations to help the survival of the organization. One of the fundamental principles of total quality management and continuous improvement in all processes, improve the quality of customer service, production of lesions (lesions recyclability), focus on improving the process rather than criticizing people and making decisions based on data.

Come. But due to some inconsistencies and policies, systems and methods are inefficient, overlapping functions, duplication and the incidence of natural disasters (droughts and floods) agricultural sector has faced difficulties in recent years with the inhibit the growth of this sector is desirable. In fact, total quality management Agriculture Organization, is intended to improve organizational performance. But the relationship between total quality management and organizational citizenship behavior and their impact on the proper execution of the military system and the need to study the proposals is thinkable.

This study attempts to question the relationship between the research proposals and a comprehensive quality management and organizational citizenship behavior that is considered as intermediate variable appropriate solutions to the challenges of

the existing participative management system and barriers to reduce costs and achieve perfect efficiency, the impact of organizational citizenship behavior in organizations to identify and review.

### 2 Methodology

#### Research Methodology

This study, the purpose of the application, in terms of descriptive and correlation research method and the method of data collection is to field.

#### Statistical Society

The population of the original population from which the sample or reagent can be obtained or view. The population consists of all employees Agriculture Organization of Ardabil province, which employs 951 people.

#### Sample size and sampling

The method used for sampling is simple random sampling. Morgan is also used to determine the sample size sample size of 274 is under the table. Finally, 270 questionnaires were returned and analyzed.

#### The data collection tool

The following questionnaire was used for data collection:

MOGHIMI organizational citizenship behavior questionnaire (2005), which has 21 questions. A standard questionnaire recommendation system Sohrabi (2013), which has 44 questions. Total quality management standard questionnaire MOGHIMI (2009), which has 15 questions.

#### Validity and reliability

The validity of the questionnaire validity have been used, the survey questionnaires were approved with teachers.

To assess the reliability of the questionnaire, Cronbach's alpha coefficient was used. The results of Cronbach's alpha coefficient was calculated as follows:

Table 1: Table reliability of questions related to each variable

Variable	Cronbach's alpha coefficients
Suggestion System	0.74
Total Quality Management	0.79
Citizenship Behavior	0.88

#### Method of analysis:

To analyze the data, SPSS software was used. To assess the relationship between total quality management and suggestion system from Pearson and to determine the role of behavior in mediating the relationship between two variables recommendation system and total quality management regression coefficient with frequent entry method is used.

### 3 Findings

According to research results are 84.1% of the male respondents and 15.9% are women. In addition, 7% of respondents under 30

years of age and 40 percent with the lowest frequency to the highest frequency of 30 to 40 years old.

In the case of education, the results show that 5.6% of respondents are least frequent school or high school diploma and 50 % are the most frequent expert.

The Relationship between quality management system and comprehensive proposals Agriculture Organization

Table 2. Results of Pearson correlation coefficient to determine correlation

Independent variable	Statistics	Dependent variable
		Total Quality Management
Suggestion System	r	0.239**
	sig	0.001
	N	270

\*\* Statistically significant at a significance level 0.01

According to Table 2, it can be said that the recommendation system and total quality management Agriculture Organization There is a significant positive relationship. The correlation coefficient between the two variables is 0.23.

The relationship between suggestion and comprehensive quality management system with the mediating role of organizational citizenship behavior

Table 3. Regression analysis of the relationship between recommendations and comprehensive quality management system with frequent entry through the mediating role of organizational citizenship behavior (enter)

Predictive variables	Statistical indicators				Regression			
	MR	SR	F	P	1	2	3	4
Suggestion System	0.239	0.057	16.22	0.001	B=0.23			
					t=4.02			
					P=0.001			
The proposed system mediating role of organizational citizenship behavior	0.504	0.254	45.44	0.001	B=0.14	B=0.45		
					t=2.65	t=8.39		
					P=0.008	P=0.001		

To achieve this, the OCB role in the relationship between quality management system and comprehensive proposals, stepwise regression analysis was used.

As in Table 3 can be seen, the dependent variable in the equation is that the system offers. This variable ( $R^2a=0.05$ ) of total quality management to predict the distribution of makes and models constitute the first. OCB as a mediator and 0.19 constitute the second model to predict the criterion variable distribution rate ( $R^2a-R^2b=0.19$ ) and with the first version ( $R^2b=0.25$ ) explain this distribution. Comprehensive relationship between the two variables increases.

#### 4 Conclusion

According to the results of a comprehensive quality management system, proposals and Agriculture Organization There is a significant positive relationship. Given these findings, we can say that the improvement suggestion system in Ardabil Agriculture Organization, total quality management and customer and employee relations aspects of the organization improves.

These results are consistent with findings of rescue and colleagues (2008) as well. Their research showed Job satisfaction and trust employees to managers, significant relationship with organizational citizenship behavior and organizational citizenship behavior is also positively related to perceived service quality by customers.

Also the results with the results Ahmadi et al (2012) as well. Their research showed that organizational citizenship behavior in Tehran province has no direct impact on organizational performance industrial companies, But through a management method such as the establishment of a comprehensive quality management organizational citizenship behavior and customer satisfaction and efficiency as two important factors linked to

organizational performance. Thus, total quality management play an important role in the relationship between organizational citizenship behavior and performance of industrial companies plays.

According to the results of a comprehensive quality management system with the proposals and the mediating role of organizational citizenship behavior there is a significant relationship Agriculture Organization and with the intervention of organizational citizenship behavior in the relationship between recommendations and comprehensive quality management system, the relationship between the two variables increases.

In interpreting this finding can be said that organizational citizenship behavior and its dimensions such as altruism, civic virtue and sportsmanship as mediator significant effect on the relationship between quality management system and comprehensive proposals. In other words, if the equation OCB proposals and comprehensive quality management system, the relationship between these two variables increases.

The research findings with results Asadi and Zakir (1393) as well. Their research represents a significant effect on the components of total quality management, organizational citizenship behavior (leadership, staff management, customer focus, planning, performance management and data analysis) is.

The research findings with results Gyomaras (1996) as well. His research showed that the implementation of total quality management in organizations leads to high satisfaction of employees, their participation in the job, commitment to the organization and desire permanent organization.

The research findings with results Research Joy Vay Jong and Sung Van Hung (2008) as well. Their research showed that between organizational citizenship behavior and the components

of total quality management and organizational performance, there was a significant relationship. The impact of TQM on performance software components to hardware components, and more powerful.

### 5 Application of research proposals

Welfare organization to motivate and increase employee satisfaction (up to provide services to clients) increased.

Managers Agriculture Organization of Ardabil of financial and material resources to encourage and reward their employees.

Providing services to clients in Ardabil Agriculture Organization carried out using a computer system.

Managers Agriculture Organization of Ardabil efforts to ensure that the provisions of the Charter of ethical, transparent and free from ambiguity.

Managers Agriculture Organization of Ardebil province has a plan to try new methods of work, inform the customer at the right time to raise.

Staff Agriculture Organization of Ardabil province follow all laws and regulations, even if someone is not above them.

Staff try not to use them for the benefit of the right colleagues not to step on their progress.

Employees at all meetings of the organization (formal and informal) full attention and participate.

Declarations to all employees of the organization (on site and bulletin boards) take note of and act on them really.

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## THE IMPACT OF WORKING CAPITAL ON PROFITABILITY AND CASH HOLDINGS OF THE COMPANIES LISTED IN TEHRAN STOCK EXCHANGE

<sup>a,b</sup> SOMAYYEH ASADINIYA, <sup>b</sup>ZAHRA FOTOUREHCHI,  
<sup>c</sup>DAVOUD PANAHI

<sup>a</sup>Department of Accounting, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran

<sup>b</sup>Department of Accounting, Ardabil Branch, Islamic Azad University, Ardabil, Iran

<sup>c</sup>Assistant professor, University of Mohaghegh Ardabili, Ardabil, Iran

Email: <sup>a</sup>somayeh.asadinia@gmail.com,

<sup>b</sup>ZahraFotourehchizf@gmail.com,

<sup>c</sup>davoud.panahi.dp@gmail.com

Abstract. Working capital deals with current assets and liabilities. The current asset of a company constitutes a significant portion of its total assets. The importance of working capital emanate from the fact that working capital levels can influence profitability and risk level imposed on a company and ultimately the extent of cash value held by company. Thus, the present research was performed in order to gather evidence on the influence of working capital on profitability and cash holdings of the companies listed in Tehran Stock Exchange. In the current research, using the screening, 148 companies were analyzed during the period 2010-2014. To analyze the current research, the panel data regression analysis method was used. The results indicate that working capital lacks any significant effect on profitability.

Keywords: Working Capital, Cash Holding, Profitability

### 1 Introduction

Capital constitutes the basis for financial management issues, and it can be argued that all business activities require capital. Capital consists of all the funds that are used by companies, and in this regard, financial management specifies framework of the relationship between capital and corporations. Considering the importance of capital in management organizational process, its management is of utmost significance. In the meantime, working capital in all companies accounts for a considerable part of capital, and managing it is highly significant. Efficient management of working capital can have a significant impact on the yield, and lack of such capital can bring about great risks for any company. Most corporate insolvencies is due to financial managers' inefficiency in planning and proper management of current liabilities and assets in the companies (Smith, 1980).

In general, managers utilize two strategies for managing the working capital. They can minimize their investment in working capital, i.e. to take the bold policy or choose a conservative policy. Therefore, before deciding on the optimal level of investment in current assets, management should create a balance between expected profitability and risk.

Minimize the investment on working capital (bold policy) may positively affect the company profitability. However, Wang (2002) pointed out that if inventory levels would reduce significantly, the risk of the company increases due to the possible loss of market excess demand. Furthermore, the adoption of restricted credit policy on receivable accounts may lead to a decrease in sales. Similarly, the increase in financing through payable accounts may result in the loss of trade discounts for early payment.

On the other hand, increased investment in working capital (conservative policy) may lead to increased profitability. Maintaining high levels of inventory can contribute to some benefits including a reduction in probable expenses relevant to delay in production process, a reduction in corporate losses due to reduced level of production, a reduction in sales expenses, and also protection of the company against price fluctuation, etc. In addition, unrestricted credit policies contribute to an increase in corporate sale. Business credit can perform effectively same as a price failure, and motivate customers to demand more goods, when demand is low.

Most empirical evidence related to working capital management and profitability corroborate the fact that a bold policy of working capital can increase profitability.

In recent years, many companies have been faced with liquidity poor condition that an investigation of the relevant factors is a matter of great importance. Efficient working capital management as an important aspect of financial management practices is known at all forms of organization. The presence of an extensive literature (discussed in the following parts) shows that the efficient working capital management will affect liquidity and profitability directly. On the other hand, the probability of bankruptcy for companies that are exposed to inappropriate management of working capital (despite their utilization of positive profitability) can be increased. Working capital management deals with current assets and liabilities. A company's working capital constitutes a significant portion of the current assets. The excessive levels of current assets can lead to the realization of return on investment lesser than the standard minimum. However, companies that have little current assets suffer from some shortages and problems in the ordinary course of operations. Efficient working capital management includes planning and controlling current assets and liabilities to be able to resolve the risk of inability to meet short-term commitments on the one hand and avoid excessive investment in current assets on the other hand (Rehman and Nasir, 2007).

In addition, if working capital management is not performed effectively, a company might be unable to pay its debt and obligations, and its activity fails to continue. Nowadays, the decision to determine the level of cash reserves in the companies has become one of the significant factors in the finance literature. The main advantage of cash holdings in inefficient capital markets is an increase in the company's ability to use valuable investment opportunities and avoid expensive external financing. Due to the important impact of cash holding levels on investment opportunities, and also the role of effective working capital management and the relationship between cash holdings, it is important to investigate the impact of working capital on profitability and cash holdings. Thus, based on what was said, the current research seeks to examine the impact of working capital on profitability and cash holdings in the companies listed in Tehran Stock Exchange.

### 2 Theoretical foundations and research background

Mohammadi (2008) in an article examined the effects of working capital management on the profitability in a company. The results obtained from the research show that there is a significant inverse relationship between corporate profitability and the factors namely accounts' receivables collection period, payment of creditors' liquidation, and cash conversion cycle (CCC). In other words, by reducing accounts' receivables collection period and inventory turnover period reasonably, managers can increase corporate profitability. In addition, the results from the current research in relation to payment of creditors' liquidation can show that profitable companies have a shorter payment period.

Jannesari (2012) in its research analyzed the effect of working capital management on profitability. The research results show that the company can reduce the number of days of cash cycle as a measure of working capital management and retention of its components (cash conversion period if accounts payable and receivable, material and goods inventories) at the optimal level, thus improve its profitability and create value for its shareholders.

Heidari and Houshmand Zaferanieh (2011) examined the effects of working capital management on corporate profitability. The findings show that there is a significant inverse relationship

between accounts payable workflow and cash conversion cycle (CCC) with profitability, and by reducing accounts' receivables collection period, increase inventory turnover period, and CCC, managers can increase the profitability. However, concerning the relationship between the repayment of payable accounts and companies' profitability, the research performed in this area achieved the same results. All research carried out in this context underline the fact that working capital management can improve corporate profitability.

Rezai and Garkaz (1392) in their research analyzed the effects of changes in working capital on investment opportunities. For this purpose, panel data of 151 companies listed in Tehran Stock Exchange were reviewed in a seven-year period. Using F Limer and Hausman test, the appropriate model was determined, and regression was used to test the hypotheses. The results show that there is a significant inverse relationship between the changes in working capital of companies and investment opportunities.

Raheman and Naser (2007) examined the relationship between with corporate profitability and the factors namely working capital management and liquidity of companies, and the results showed that there is a significant inverse relationship between corporate liquidity and debt and profitability.

Teruel and Solano (2007) examined 8872 small and medium Spanish companies during the years 1996 to 2002, and tested the relationship between working capital management and profitability of small and medium-sized firms. The results showed that management can reduce the number of working days in receivable accounts conversion and also goods and material inventories, thus create value for the company. In addition, shortening the cash conversion cycle (CCC) leads to improved profitability.

In a research performed on the companies listed in Karachi Stock Exchange, Afra and Nazir (2009) examined the relationship between working capital management policies and firms' profitability, and concluded that by adopting a conservative approach to investments in working capital and financing of working capital, managers can change corporate value.

Nyabwanga et al (2012) investigated the effect of working capital on the financial performance of small-scale companies in Kenya. The results showed that working capital management performance was not at a higher level, and the majority lacked working capital management procedures and their financial performance was not satisfactory. The research concluded that working capital management performance can impact the financial performance of small scale companies, and corporate managers are required to improve ways of working capital management as a strategy to improve their financial performance.

Mwalla (2012) performed a research on the listed companies in Oman Exchange Stock to examine working capital management strategies on corporate profitability and corporate value. The results showed that conservative policies can have a positive impact on profitability and corporate value creation, and bold policies can have a negative impact on profitability and corporate value creation.

Wang et al (2013) examined inflation, operating cycle, and cash holdings. The results show that there is a significant negative relationship between inflation indicators and monetary resources, but when inflation indicators reach a certain level, there is an inverse relationship. In addition, there is a U-shaped relationship between operating cycle and cash resources, which are similarly influenced by the changes in inflation level.

Santasaso (2014) studied the effects of debts expense on the company's profitability. The study includes 3,556 companies in 2007-2011 that are accepted at Borsa Italiana. The results show that debts expense can affect corporate profitability.

Sang and Sopeng (2015) in an article investigated working capital, cash holdings and profitability. They examined the impact of cash holdings and working capital on profitability, and the findings showed that working capital and cash holdings can impact profitability.

### 3 Research Hypotheses and Models

#### Research Hypotheses

**Hypothesis 1:** company's working capital can significantly affect profitability.

**Hypothesis 2:** company's working capital can significantly affect cash holding.

**Model 1:**  $ROA_{it} = \beta_0 + \beta_1 WCR_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 GDP_{it} + \beta_5 LEV_{it} + \epsilon_{it}$

**Model 2:**  $CASH_{it} = \beta_0 + \beta_1 WCR_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 GDP_{it} + \beta_5 LEV_{it} + \epsilon_{it}$

Index i relevant to the companies/periods, and index t relevant to time interval.

#### Dependent variable

ROA<sub>it</sub> profitability: as independent variable that show return on asset, and is obtained based on profit followed by deduction of tax by assets.

CASH<sub>it</sub> cash holding: as cash and its equivalent divided by gross asset.

#### Independent variable

WCR<sub>it</sub>: working capital as current assets minus current liabilities.

#### Control variables

SIZE<sub>it</sub>: firm size that is measured by the natural logarithm of total assets (Foroughi and Mohammadi, 2013).

GROW<sub>it</sub>: growth rate that is measured based on sales minus sales last year divided by sales last year.

LEV<sub>it</sub>: financial leverage based on total asset measured by total debt.

GDP<sub>it</sub>: the growth rate of production based on production minus the production in the previous year divided by production in the previous year.

The research statistical population is composed of all the companies listed in Tehran Stock Exchange, which should take advantage of the following qualifications:

- 1-They should be listed in Tehran Stock Exchange in 2009 or earlier.
- 2-They should not have any change in their fiscal year within research time interval.
- 3-The firms' fiscal year during the research duration should end in 20 March.
- 4-The study time interval should be 2010 to 2014.
- 5-Data relevant to the variables in all of the years under research must be available.

After applying the above limits, a total of 148 companies were selected as the final sample. Thus, the number of observations is 740 years-firms.

**4 Results**

Two major processing and analysis methods are performed on the data. These two methods include descriptive and inferential statistics. The data analysis in descriptive statistics begins with the calculation of the indices including mean, median, and distribution indices of standard deviation such as skewness, and skewness-kurtosis.

To test whether or not these errors are independent, Durbin-Watson Test is used. If the value of Durbin-Watson statistics becomes 2, it means that the sample is random, and there is no auto-correlation. The coefficients of the variables in the regression model are tested using Student's t-Tests. In the

current research, to test the significance of the regression model processed, Fisher (F) statistics at 95% confidence level is used. Using linear regression, the hypotheses are tested. In the research, multivariate regression is used as the statistical method. The main purpose underlying the regression method is to investigate whether the independent variables can significantly affect dependent variable or not. In addition, in this method, to test the hypotheses, pooled data are used. In pooled data methods, to choose between panel and pooling methods, F Limer method is utilized. In case of selecting panel method, Hausman test is performed to select either fixed effect method or random effects. The collected data were modified and classified using software (EXCEL) on the basis of the variables, and then incorporated into EVIEWS7, and final analysis was performed. Finally, the research hypotheses were rejected or approved using the results obtained from the software.

Table 1: Descriptive statistics

Variable	Mean	Standard Deviation	Skewness	Kurtosis	Min.	Max.
Size	13.70846	1.550704	0.623951	3.250298	10.30849	18.45456
LEV	0.649106	0.287765	2.08436	14.62917	0.01796	2.72928
GDP	-0.00308	0.078714	-0.53779	2.124712	-0.13612	0.091505
GROW	0.329173	1.6437	6.6235	59.4875	-0/98937	19.83248
WCR	-857984	5864080	-6.64787	55.97527	-0.5719204	23755908
ROA	0.25704	1.682853	11.63689	218.1035	-15.0397	31.54154
Cash	0.257807	0.154666	0.814365	3.727351	0.000595	0.87013

Table 1 presents the descriptive statistics relevant to the research variables. For example, the firm size has the mean and standard deviation 1.55 and 13.70, respectively, and the minimum and maximum values of this variable are 10.30 and 18.45, respectively. This statistic for other variables in the research is presented in Table 1.

Before the estimation of each model in Table (2), to check which pooled or panel model is more effective for estimating the research regression models, F Limer test is used. The null

hypothesis of this test indicates the suitability of pooled regression.

The results obtained from this test are presented in Table 2. As the significant level of F statistics and Chi-square statistic for Models 1 and 2 are less than 0.05, the null hypothesis of this test is rejected in favor of the alternative hypothesis. Thus, this test shows that the panel model is suitable to estimate Models 1 and 2.

Table 2: F Limer Test

Model	Statistics F	Significance Level	Chi-Square Statistics	Significance Level	Test Result
Model 1	2.1843	0.000	322.888	0.0000	***
Model 2	18.4651	0.000	12.779129	0.0000	***

\*\*\* Significance at 0.01, \*\* Significance at 0.05, \*Significance at 0.1

In the model relevant to the estimation with the data panel, there are two methods including estimation with fixed effects or random effects, and to determine whether we use fixed effects model or random effects methods for estimating the parameters in Models 1 and 2, Hausman test is applied. The null hypothesis from Hausman test based on the suitability of random effects model is used to estimate the panel data regression models.

less than 0.05, the null hypothesis regarding the suitability of the random effects in these models can be rejected, and to estimate Model 2, panel method with fixed effects are used. In addition, given that a significant level for Hausman test in Model 1 is greater than the error level of 0.0%, it can be said that regression method with random effects can be applied for Model 1.

The results obtained from Hausman test to choose between fixed and random effects in Models 1 and 2 are presented in Table 3. Given that the significance level of Hausman test for Model 2 is

Table 3: Hausman Test

Model	Chi-Square Statistics	Significance Level	Test Result
Model 1	4.4317	0.4891	
Model 2	31.3825	0.000	***

\*\*\* Significance at 0.01, \*\* Significance at 0.05, \*Significance at 0.1

**Estimation of Model 1**

The results obtained from estimating the model 1 using panel data with random effects (4) are shown in Table 4. In this table, the statistics F and its significance level are related to the testing of the certainty of a linear relationship (total regression test) between the dependent and independent variable. Given that significance level of this test for Model 1 is less than 0.1, it can be concluded that the linear relationship between the dependent and independent variables in Model 1 are confirmed. Another hypothesis considered in the regression is independence of errors (the difference between the real values and the values predicted by the regression equation), such that Durbin-Watson statistic is almost 2 and the lack of the correlation between the errors is accepted. According to Table (4), Durbin-Watson statistic for Model 1 has an almost good value.

In Table 4, the coefficient of the variable “working capital” in the model 1 is 0.00000000844. In addition, the significance level of the coefficient obtained is 0.5583, and given that the significance level obtained for the coefficient of working capital is higher than the error level of 0.1, 0.01, and 0.05, working capital has not a significant effect on profitability. Thus, it could be concluded that the hypothesis 1 “the significant impact of working capital on profitability” can be rejected.

Based on the significance level obtained for the variable namely company financial leverage, it can be concluded that this variable can positively and significantly affect company profits (the coefficient obtained is 0.655579 and significance level 0.0168).

Table 4: Estimation of Model 1

Method Dependent Variable	Regression Panel (Random Effects)		
	ROA		
Variables	Coefficient	Significance Level	
WCR	0.00000000844	0.5583	
SIZE	-0.04162	0.4617	
GROW	0.037905	0.2945	
GDP	-0.33077	0.6446	
LEV	0.655579	0.0168	**
C	0.395735	0.6257	
Statistics F	1.9100		
Significance Level	0.0904		*
Coefficient of Determination	0.0128		
Durbin-Watson Statistic	1.27		

\*\*\* Significance at 0.01, \*\* Significance at 0.05, \*Significance at 0.1

**Estimation of Model 2**

The results obtained from Table 2 using panel data with fixed effects are shown in Table 5. Given that the level of significance of the test for model 2 is less than 0.05 It can be concluded that the linear relationship between the dependent and independent variables in the model 2 is confirmed 2. Durbin-Watson statistic for the model 2 is a proper amount.

Given that the coefficient of determination for the model 2 is 0.96, it can be concluded that about 96 percent of the changes in the variable namely cash holding and cash are explained by the independent variables

In Table 5, the coefficient of the variable “working capital” in the model 2 was obtained to be 0.00000000203. In addition, the significance level of the coefficient obtained is 0.0098, and given that the significance level obtained is less than the error level of 0.1, 0.05, and 0.01, the significant impact of working capital on cash holding cannot be rejected. Thus, it could be

concluded that the hypothesis 2 “the significant impact of working capital on cash holding” can be rejected at the error level 0.01.

Based on the significance level obtained for the variable namely company size, it can be concluded that this variable can positively and significantly affect company cash holding (the coefficient obtained is obtained to be 0.023388 and significance level 0.000).

Based on the significance level obtained for the variable namely company financial leverage, it can be concluded that this variable can negatively and significantly affect company cash holding (the coefficient obtained is obtained to be -0.6816 and significance level 0.000).

Based on the significance level obtained for the variable namely company growth, it can be concluded that this variable can positively and significantly affect company cash holding (the coefficient obtained is 0.002887 and significance level 0.0109).

Table 5: Estimation of Model 2

Method Dependent Variable	Regression Panel (Random Effects)		Test Result
	Cash		
Variables	Coefficient	Significance Level	
WCR	0.00000000203	0.0098	***
SIZE	0.023388	0.0000	***
GROW	0.002878	0.0109	**
GDP	0.015714	0.3522	
LEV	-0.6816	0.0000	***
C	-0.01722	0.8021	
Statistics F	100.11		
Significance Level	0.0000		***
Coefficient of Determination	0.96		
Durbin-Watson Statistic	1.68		

\*\*\* Significance at 0.01, \*\* Significance at 0.05, \*Significance at 0.1

**Hypothesis 1:** company working capital has a significant effect on profitability.

According to the findings obtained from the data analysis, it was concluded that working capital does not have a significant impact on profitability. Thus, it can be concluded that the hypothesis 1, i.e. “company’s working capital has a significant effect on profitability” is rejected. This finding is inconsistent with the one obtained from the research performed by JanNesari (2012), Heidari and Houshmand Zaferanieh (2012), Mohammadi (2009) and secondary Nyabwanga et al (2012).

**Hypothesis 2:** working capital can significantly affect cash holding.

According to the findings obtained from the data analysis in Chapter 4, it was concluded that working capital with 99% confidence (given the coefficient mark) has a significant and positive impact on cash holdings. Thus, it can be concluded that hypothesis 2 “working capital can have a significant effect on cash holdings” is not rejected. This finding is consistent with the findings of the research performed by Samadi and Imeni (2013).

### Conclusion

In general, working capital and its components can have a significant impact on corporate profitability, and also the results indicate that investment on working capital processes and interlink between working capital management with day-to-day processes are essential for corporate profitability. As an important result, it should be said that firms must include working capital management in their financial planning processes.

Based on the results obtained from the second hypothesis, it was indicated that company working capital has a positive and significant impact on cash holding. To increase cash, working capital is suggested to be increased, such that it can provide more profits for companies, executives, investors and other stakeholders.

One issue that is not addressed in the current article is the impact of corporate governance on the relationship between working capital and profitability and the extent of cash holding. In general, the companies with different ownership structures have a different ownership structure, and can also provide more general results. Researchers can examine the impact of working capital on profitability and corporate cash holdings in various industries.

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## STUDYING THE IMPACT OF CASH-FLOW UNCERTAINTY AND ENVIRONMENTAL UNCERTAINTY ON NON-CASH FLOW SHOCK RETURNS AT TEHRAN STOCK EXCHANGE

<sup>a</sup>TINA SHAHALIZADEH, <sup>b</sup>\*JAVAD GADIMPOUR

<sup>a</sup> Department of Accounting, Ardabil Science and Research Branch, Islamic Azad University, Ardabil, Iran

<sup>b</sup> Department of Accounting, Ardabil Branch, Islamic Azad University, Ardabil, Iran

Email: <sup>a</sup>tinatanshahalizadeh@gmail.com,

<sup>b</sup>JavadGadimpour12@gmail.com

**Abstract:** The aim of this paper was to investigate the impact of cash-flow uncertainty and environmental uncertainty on non-cash flow shock returns at Tehran Stock Exchange during 5 years that is from 2009 till 2013. The samples of this research consisted of 96 companies which involve 480 years number of observations. In this paper, to hypothesis and correlation coefficient, linear regression was applied. In order to analyze data and test hypotheses EVIEWS7 software was used, after designing and testing hypothesis which was done separately for each, it was concluded that cash-flow uncertainty and variability of company stock returns has significant effect on non-cash flow shock returns; however, company assets return variability has no significant effect on non-cash flow shock returns.

**Keywords:** non-cash flow shock returns, cash-flow uncertainty, environmental uncertainty.

### 1 Introduction

This study is done through presenting useful information about predicting cash-flow, giving priority to controlling cash-flow, and as well as other planning about it, and it can be said that the more non-cash flow returns be negative, the more the stocks of company will have negative earnings fluctuation and thereby the quality of accruals and stock companies reduce that it can have a significant impact on returns. As previous studies have shown, stock returns can be calculated by using the expected cash flow shocks. One of the most important factors in choosing the best investment is stock return, and investors can best allocate their assets by considering the correlation between stock returns and other accounting information. The empirical literature on macroeconomics and finance has shown a strong correlation between shock uncertainty and investment policies. Despite the changes in unconventional instability, theoretical explanations for the answers to investment have been focused on characteristics of real options. By returning costs, an increase in fluctuation, can change optimal investment timing. Moreover, after the financial crises from 2007 to 2009, as a potential mechanism that was leading to the observed association between uncertainty and investment, shortcomings in financial markets have been examined (Glover & Levine, 2015).

The achieved returns consist of three components: the expected returns, returns on cash flows, and returns of decline rate, which among all of these only the expected return reflects the company's cost of equity. Asset pricing tests that using the average stock returns are based on this assumption that, the average of realized returns and expected returns is equal. For longer periods of time, realized return cannot be equal with the expected return. Therefore, the tests that use average of realized return as a measure of their expected returns are one-sided, that this case is connected to the shock of future cash flows and changes. Ogneva (2012), has divided the total realized returns of one company stock to cash and non-cash flow shock returns. During the life of a company, the sum of cash-flow must be equal to the total revenues and as a result, a surprising earning could lead to a shock cash flow. The reaction to the stock price, by considering revised in the exploration of future cash flows can evaluate a cash flow shock. External financing for companies is very difficult consequence for uncertain cash-flow. Because these companies have higher costs for capital, such uncertainty leads to more investment risk. Generally, some companies with high levels of cash flow uncertainty will have higher expected returns and subsequently cash flow shock returns. Risky commensurate return is a key principle of financial theory. Each element of working capital can be

considered as a certain element of risk-return range. Within the paradigm of additional value, if the stockholders return be more than the cost of the capital, the company can create value to them. Then, increasing the risk of working capital will cause increasing company's risk and expected returns of stockholders. In this case, the company should offer higher returns for value creation than the expected return. One of the fundamental cases in company management is the company's cash flow forecast, because the results of this forecast will affect the company's plan. Then the management is always looking for such predictions; and therefore, the aim of this paper was to examine the effect of uncertainty on cash flow and environmental uncertainty on non-cash flow returns shock. Now the main question is whether the uncertainty (cash flow and environmental) has effect on non-cash flow return or not.

### 2 Theory and literature review

One of the most important uncontrollable environment conditions that affect the function and profitability of organization is environmental uncertainty, which points to the unpredictability of customers' reaction, raw material marketer, competitors and regulatory groups. The impact of these surrounding factors unconsciously modulates their correlation with the business unit. Through modulating correlations of above mentioned factors with business unit, the function and profitability of it, will be influenced and cause high fluctuation in profitability (Gosh and Olsen, 2009). Although all these factors can make high fluctuation in companies reported profits, by considering company size, nature of activity and its correlation with the other companies, the impact of these factors on the functions of companies can be different (Rut & Cynthia, 2010). Among these factors, unpredictability of customers' reaction is one of the most important case that can have the same effect on all the companies function and thus increase the comparability among them (Gosh and Olsen, 2009). Since customers are the only factor that associated with most companies and also because all of them live in the same society with the same culture, beliefs and relatively equal conditions, then their behavior will be similar with all companies (Jong-Hag et al, 2011). Eventually, high fluctuation in the external environment will cause extreme fluctuation in companies' profitability, and as a result their stock will face with lack of interest of stockholders and investors. Because, when functioning, sharing and dividing profit of each company from year to year doesn't have high and non-justification fluctuations, from the stockholders and investors attitude the risk of investment will increases in that company. So, fewer people trading their stock, and by passing the time decreased trading volume cause the stock prices of these companies reduce (Gul et al, 2003). On the other hand, in this situation, financial institutions and creditors are unwilling to lend and finance to these companies, or consider more interest rates and stricter requirements to them. In 1987, Moses realized effective way of profit fluctuation on borrowing rate and stock prices, and mentioned that the companies with high profit fluctuation, will receive more borrowing rate and so their stock price will decrease (Pourheydari & Aflatouni, 2005). On the other hand, accepted accounting principles granted authority to managers that enable them to minimize company reported profit fluctuation which is caused by environmental uncertainty and always report the same profit. Also some companies that are uncertain about cash flow because of the lack of liquidity in the future pay less profit to companies which are uncertain about future cash flow. External sources financing is clearly more costly than financing from internal sources, because these companies these companies are limited in terms of external financing company. Therefore, above mentioned companies need internal sources to finance, thus they can pay less profit to their stockholders and this will affect the value of the company and therefore its return.

Glover & Levine (2015) started to investigate about correlation between uncertainty and corporate investment that can vary over time, and they studied that whether an increase in uncertainty that signs and scope of the reaction depends on the salary and benefit, can stimulate managers to increase or decrease investment company or not? Lee & Hsu (2015) studied the impact of cash flow uncertainty and working capital on non-cash flow shock returns. The results showed that there is significant relationship between working capital and non-cash flow shock returns. In addition, there isn't any significant relationship between uncertainty of cash flows and non-cash-flow shock returns. Ogneva (2012) investigated about quality of the accruals, realized return and expected returns, and he mentioned that stocks with low (high) quality accruals is a reason to negative (positive) non-cash flow shock returns. This negative (positive) cash flow shock dampens expected high (low) returns of the companies with low (high) quality accruals. Regardless cash flow shocks, realized return is inversely with quality accruals. Mari et al., (2011) in their investigation as environmental uncertainty and intelligence environmental management showed that inherently environmental uncertainties influence in two ways on managers decisions which one of them is through identifying changes in management business environment and the other is through creating changes that managers themselves do to check environmental uncertainty in the business environment. Foughi et al., (2014), the analysis of accruals quality on without on non-cash flow shock returns. The purpose of this paper is to investigate the impact of accruals quality on non-cash flow shock returns. The results show that stocks with high quality accruals, have less non-cash flow shock returns. In general, this study determines the importance of controlling cash flow shock on asset pricing models that use realized stock returns. Ghaemi et al., (2012), investigated the impact of environmental uncertainty on the way using discretionary accruals by managers, that their results show the positive correlation between environmental uncertainty and fluctuation in unmanaged profit. Positive correlation also has confirmed between environmental uncertainty and the level of discretionary accruals and Earnings Smoothing. Armat and Dastghir (2013) in an investigation as environmental uncertainties and the current stock returns studied the way of environmental uncertainty influences on companies function and profitability and also the correlation of profit and current stock returns in an uncertain condition. The findings suggest that environmental uncertainty create so much fluctuation on function and profitability of companies and managers proceed to Reported income smoothing to avoid the negative effects of it by using discretionary accruals and the Smoothed profits have significant correlation with current stock returns. Hejazi et al., (2011), investigated the impact of environmental uncertainty on profit components and also showed that it will influence unmanaged profit.

### 3 Research hypothesis

According to research questions, the following hypotheses have been explained:

**The main hypothesis 1:** Cash flow uncertainty on non-cash flow uncertainty has significant effect.

**Hypothesis 1-1:** The variability of stock returns has a significant effect on non-cash flow shock returns.

**Hypothesis 1-2:** The variability of company assets return has significant effect on non-cash flow shock return.

**The main hypothesis 2:** Environmental uncertainty has a significant effect on non-cash flow returns.

**Hypothesis 2-1:** Sales variation coefficient has significant effect on non-cash flow shock return.

**Hypothesis 2-2:** Capital cost of variation coefficient has a significant effect on non-cash flow shock returns.

**Hypothesis 2-3:** Net profit variation coefficient before tax has significant effect on non-cash flow shock return.

### 4 Methods

According to objective of this paper, it is a kind of applied research. As well as based on the method and nature of research it is correlation research. The aim of this study is to determine the correlation of variables. The way of data collection for this study is library study and the population of it consisted of all companies listed on the Stock Exchange of Tehran and 96 companies was selected during 5 years that is from 2009 till 2013, which in 2014 because of the need for the research variables in coming year data, it was not entered to research courses and its data is used to calculate some variables. In order to analyze data, EVIEWS7 software was used and through t statistical tests the calculated probability of judging and evaluating on each of the research hypotheses were discussed.

### 5. Research Model and Calculated variables

The regression model was used to investigate about the impact of environmental and cash flow uncertainty on non-cash flow shock returns and to separate hypothesis as follow that the main statistical hypothesis 1 is presented in equation (1):

$$r_{it}^{NCF} = \alpha + \beta_1 ROAVOL_{it} + \beta_2 SRVOL_{it} + \beta_3 SIZE_{it} + \beta_4 BMRATIO_{it} + \beta_5 NWC_{it} + \varepsilon_{it} \quad (1)$$

$r_{it}^{NCF}$ : non-cash flow shock returns,  $ROAVOL_{it}$ : Variable Change of return on assets (cash flow uncertainty character),  $SRVOL_{it}$ : variability of company stock return (cash flow uncertainty character),  $SIZE_{it}$ : company size,  $BMRATIO_{it}$ : the ratio of company on stock,  $NWC_{it}$ : Net working capital

Hypotheses Statistical 1-1:

$$r_{it}^{NCF} = \alpha + \beta_1 SRVOL_{it} + \beta_2 SIZE_{it} + \beta_3 BMRATIO_{it} + \beta_4 NWC_{it} + \varepsilon_{it} \quad (2)$$

Hypotheses Statistical 1-2:

$$r_{it}^{NCF} = \alpha + \beta_1 ROAVOL_{it} + \beta_2 SIZE_{it} + \beta_3 BMRATIO_{it} + \beta_4 NWC_{it} + \varepsilon_{it} \quad (3)$$

The main hypotheses (2): environmental uncertainty has significant impact on non-cash flow shock returns.

$$r_{it}^{NCF} = \alpha + \beta_3 CVS_{it} + \beta_4 CVCC_{it} + \beta_5 CVP_{it} + \beta_6 SIZE_{it} + \beta_7 BMRATIO_{it} + \beta_8 NWC_{it} + \varepsilon_{it} \quad (4)$$

$r_{it}^{NCF}$ : non-cash flow uncertainty,  $CVS_{it}$ : sales variation coefficient (cash flow uncertainty character),  $CVCC_{it}$ : capital coefficient variation (cash flow uncertainty character),  $CVP_{it}$ : net profit variation coefficient before tax (cash flow uncertainty character)

Hypotheses Statistical 1-2:

$$r_{it}^{NCF} = \alpha + \beta_1 CVS_{it} + \beta_2 SIZE_{it} + \beta_3 BMRATIO_{it} + \beta_4 NWC_{it} + \varepsilon_{it} \quad (5)$$

Hypotheses Statistical 2-2:

$$r_{it}^{NCF} = \alpha + \beta_1 CVCC_{it} + \beta_2 SIZE_{it} + \beta_3 BMRATIO_{it} + \beta_4 NWC_{it} + \varepsilon_{it} \quad (6)$$

Hypotheses Statistical 2-3:

$$r_{it}^{NCF} = \alpha + \beta_1 CVP_{it} + \beta_2 SIZE_{it} + \beta_3 BMRATIO_{it} + \beta_4 NWC_{it} + \epsilon_{it} \quad (7)$$

### Measurement Method

#### Dependent variable:

Non-cash flow shock returns: the total returns divided to two components which are cash flow shock returns and non-cash flow shock returns. According to Cremendi&Laip research (1987), the total realized returns are analyzed to three components as equation (8):

$$r_{it+1} = E(r_{it+1}) + r_{it+1}^{CF} + \epsilon_{it+1} r_{it+1}^{CF} = \sum_{s=0}^{\infty} \beta^s \frac{\Delta E(X_{t+1+s} | UX_{t+1})}{P_t} \quad (8)$$

$r_{it+1}$ : the realized stock returns  $i$  in  $t+1$ ,  $E(r_{it+1})$ : the expected stock returns  $i$  in  $t+1$ ,  $r_{it+1}^{CF}$ : cash flow shock stock  $i$  in  $t+1$ ,  $\epsilon_{it+1}$ : abnormal stock returns  $i$  in  $t+1$  that doesn't have significant correlation with profit fluctuation.  $X_{t+1}$ : profit,  $U X_{t+1}$ : profit fluctuation,  $\Delta E(X_{t+1+s} | UX_{t+1})$ : The revision in expected profit calculation over  $t$  and  $t+1$  period.  $\beta$ : The interest rate factor that is equal to:  $(r+1)/1$ ,  $P_t$ : The market value of the company's equity in  $t$ .

According to Collins & Kothari research (1989), the cash flow shock returns in (8) equation was measured by using future period fluctuation in equation (9):

$$P_{it} / U X_{t+1} = \lambda r_{it+1}^{CF} \quad (9)$$

$\lambda$ : profit response coefficient,  $U X_{t+1}$ :  $i$  company's profit fluctuation in  $t+1$ ,  $P_{it}$ : The market value of the  $i$  company's equity in  $t$

In this paper by following Ogneva research (2012), and also by using (9) and (10) equations, the returns divided into two parts which are cash flow shock returns and non-cash flow shock returns that is analyzed by cross-sectional regression equation (10):

$$R_{it+1} = E(R_{it+1}) + \lambda U X_{t+1} / P_t + \epsilon_{it+1} \quad (10)$$

$R_{it+1}$ : realized returns,  $U X_{t+1} / P_t$ : cash flow shock returns,  $E(R_{it+1}) + \epsilon_{it+1}$ : Total intercept and the regression error of the  $i$  non-cash flow shock returns stock (Froughi & et al., 2013)

$\lambda$  is variation coefficient of  $U X_{t+1} / P_t$  in cross-sectional regression model of equation (11) for each consonant stock. The cross-sectional regression of equation (11) was estimated during 2009 till 2012. In order to calculate non-cash flow shock returns in future by using regression based on profit fluctuation, first the cash profit fluctuation of future year calculated in equation (12) which in this case the profits will divided to equity of company value in the beginning of  $t$  year.

$$U X_{t+1} = EARN_{it+1} - E(EARN_{it+1}) \quad (11)$$

$U X_{t+1}$ : company profit fluctuation,  $EARN_{it+1}$ : the profit before extraordinary items,  $E(EARN_{it+1})$ : the expected profit of company,

Through using calculated coefficient, expected profit will be estimated as equation (12):

$$E_i(EARN_{it+1}) = \beta_0 + \beta_1 EARN_{it} \quad (12)$$

In order to calculate expected profit, first the coefficient of  $\beta_0 + \beta_1$  will be calculated as equation (13) through the profit in  $t-1$ :

$$EARN_{it} = \beta_0 + \beta_1 EARN_{it-1} - \epsilon_{it} \quad (13)$$

The cross-sectional regression equation (13) was estimated through 2009 till 2012.

#### Independent Variables:

1) Cash-flow uncertainty: According to Brav et al (2005), in this situation two variables of company asset returns changeability (ROAVOL) and company stock returns changeability (SRVOL) are used.

A) Company returns assets changeability (ROAVOL): Brav et al (2005), used changeability of returns on assets variable to calculate cash flow uncertainty which is equal to standard deviation of company asset returns rate during the last 4 years, they conclude that non-cash flow shock returns lead to instability of company asset returns (ROA), thus assets returns changeability was used as representation for calculating cash flow uncertainty (Brav et al, 2005) that is as follow:

$$ROAVOL_{it} = STD(ROA) \quad (14)$$

$ROAVOL_{it}$ : assets returns rate variability,  $STD(ROA)$ : 4 years ago ROA company's standard deviation.

The company's assets returns will be calculated in equation (15):

$$ROA = \frac{Income}{Total Assets} \quad (15)$$

B) The variability of stock returns (SRVOL): According to Chay&Suh (2009), when cash flow associate with uncertainty, stock price and returns become more volatile, so using variability of company stock returns variable SRVOL is exact as a way to evaluate cash flow uncertainty, SRVOL is the monthly standard deviation company stock returns during a year (Chay&Suh2009) which is as equation (16):

$$SRVOL_{it} = STD(R_{it}) \quad (16)$$

$R_{it}$ : Monthly stock returns of the Company, is to calculate the monthly stock returns as equation (17):

$$R_{it} = \frac{P_{it}(1 + \alpha + \beta) + D_{it} - P_{it-1} - C\alpha}{P_{it-1} + C\alpha} \quad (17)$$

$R_{it}$ : actual stock returns  $i$  in  $t$  course,  $P_{it}$ :  $i$  stock price in  $t$  end course,  $P_{it-1}$ :  $i$  stock price in  $t-1$  end course,  $D_{it}$ :  $i$  cash profit stock in  $t$  course,  $\alpha$ : The percentage of capital increase from and cash profit from stockholders,  $\beta$ : The percentage of increasing capital through savings,  $C$ : investor paid face value for capital increase (1000 Rials).

2) Environmental uncertainty: internal environmental variability is measured through using three parameters:

1- Sales coefficient variation (market) which the sales variability is gained in equation (18):

$$Sales\ variation = \frac{current\ year\ sales - last\ year\ sales}{last\ year\ sales} \quad (18)$$

2- Calculated cost of variation coefficient which the calculation of capital cost is as equation (19):

$$WACC = (WS \times KS) + (WD \times KD) \quad (19)$$

The weight of normal stock equity (Ws) is as following equation (20):

$$W_s = \frac{\text{Book Value Equity}}{\text{Book Value interest bearing debt} + \text{Book Value Equity}} \quad (20)$$

The weight of interest-bearing debt (Wd) is as follow equation (21):

$$W_d = \frac{\text{Book Value interest bearing debt}}{\text{Book Value interest bearing debt} + \text{Book Value Equity}} \quad (21)$$

So, calculating the WACC rate need not only borrowing cost and returns rate but also will need weight of each of these elements in entity's capital structure. It should be noted that in this paper the debt cost rate (Kd) is equal to average of government bonds release rate which is equal to 17% and because the cost of the profit is a part of acceptable costs of tax, thus, according to 22.5% tax rate we have:

$$\text{Rate cost of debt} = 17\% * (\%100 - \%22.5) = \%13.175$$

Ws\*Ks: this represents normal stock cost weighted rate, and to calculate the cost of new normal stock cost, the Gordon model is used. This is as follow (22):

$$K_s = \frac{D(1+g)}{P} + g \quad (22)$$

D= cash profit of each stock, P=market price of per stock, g= the growth rate of stocks profit, which its calculation is as equation (23):

$$\text{The Ratio of profit accumulation} = \frac{\text{Undivided cash profit}}{\text{Current year net profit}} \quad (23)$$

$$g = \text{ROE} \times \text{Accumulated profit}$$

3- Variation coefficient of net profit before tax (profit):

$$\text{Net profit changes before tax} = \text{Net profit before current year tax} - \text{Net profit before last year tax} \quad (24)$$

In order to calculate coefficient variation of each characters of environmental uncertainty the equation (25) will be used:

$$CV(Z_k) = \frac{\sqrt{\sum_{t=1}^5 \frac{(Z_{kt} - aZ_k)^2}{5}}}{aZ_k} \quad (25)$$

CV (Zkt) =uncertainty variation coefficient K, aZk= the average variability of uncertainty information K during 5 years, Zkt=uncertainty of K in t, 1, 2, 3, 4, 5 =T: from 2009 till 2012, Zk,t=(Xkt-Xkt-1), 1, 2, 3 =K: to information uncertainty of 1) market 2) technology 3) profit.

So, by calculating environmental uncertainty, equation (26) can be used:

$$EU = \log(\sum_{k=1}^3 CV(Z_k)) \quad (26)$$

Control variable are:

Company Size: Through the natural logarithm the market value of equity can be obtained.

The ratio of book value to market value: the division of each book value to each market value of per stock is calculated.

Net working capital: Subtracting current liabilities of company is gained from current company assets.

## 6 The analysis of research hypotheses

### 6.1 Descriptive Statistics

Table 1 results

	RNCF	ROAVOL	SRVOL	CVS	CVCC	CVP	SIZE	BMRATIO	NWC
Mean	0.43574	0.05680	0.70450	-1.76346	-0.016716	-1.218635	13.551	0.652383	0.13413
Median	0.37548	0.04056	0.44637	1.16009	-0.009485	1.390835	13.520	0.541615	0.14164
Maximum	2.17173	0.40232	7.72401	46.7917	0.342360	52.25012	18.862	2.979850	0.81914
Minimum	-1.63436	0.00156	0.02297	-204.905	-1.242640	-174.3173	9.9441	-0.680440	-0.48889
Std. Dev.	0.62434	0.05446	0.93154	23.0490	0.093740	21.60306	1.4943	0.461286	0.21014
Skewness	0.06069	2.83147	4.50148	-7.28524	-4.909428	-5.465428	0.5681	1.312135	0.13148
Kurtosis	2.86217	13.7071	28.6211	63.8107	65.16782	44.71858	3.8723	5.463372	3.34463
Jarque-Bera	0.67457	2934.24	14749.9	78204.8	79224.95	37198.47	41.042	259.0999	3.75842
Probability	0.71370	0.00000	0.00000	0.00000	0.000000	0.000000	0.0000	0.000000	0.15271
Observations	480	480	480	480	480	480	480	480	480

Source: researcher findings

According to the results of Table 1, the average representing balance point and center of distribution exertion and also is a good indicator to show the centrality of data that for non-cash flow shock returns variable its equal to 0/43574. Median indicates that half of the data show less than this amount and half are greater than it and also equality of mean and median value shows normality of this variable which is 0/62434 for this variable. Jack-bera test is more than %5 for non-cash flow shock

returns variable, it means that this variable consist of normal distribution.

### 6.2 Stationary test variables

Stationary variables can be investigated in 3 forms of "level", "through the first difference" and "through the second difference". The unit root test results for variables in level and the first difference is listed in Table 2:

Table 2: The unit root test results for variables in level and the first difference

Variable	Statistic	Prob	The difference between first order
			Prob
RNCF	261.187	0.0007	
ROAVOL	240.889	0.0096	
SRVOL	319.034	0.0000	
CVS	27.6389	0.0000	
CVCC	400.162	0.0000	
CVP	11.7756	0.0672	0.0005
SIZE	153.102	0.9771	0.0000
BMRATIO	242.524	0.0079	
NWC	228.341	0.0373	
Dickey fuller test of co-integration			
Estimating the regression which has been done	RESID <sub>it</sub>	Statistic	Prob
		311.109	0.0000

Source: researcher findings

According to the results of table (2), the significant level of unit root test and also the size of company in unit root test is less than %5 in all variables except in net profit variation coefficient before tax and it shows that they are at zero order and static level, and variation coefficient variables of net profit became dynamic before tax and differencing once, these variables will be full of first level, and in order to avoid false regression, first we should change all variables to dynamic variables and then get the considered model. In this research, the test result along with

collective pattern which generalize by Dickey Fuller test was done to ensure that it is not false regression. As you can see the unit root test in disturbing regression is less than %5 which is zero and at the static level. So, there isn't any problem for estimating regression and it can be estimated with primary models.

**6.3 F Limer and Hausman test**

Table 3. The results of the mentioned tests

p-value	Statistic	test	hypothesis
0.0000	2.121812	Redundant Fixed Effects	The main hypothesis 1
0.0000	49.975058	Hausman	
0.0000	2.077249	Redundant Fixed Effects	Hypothesis 1-1
0.0000	47.520381	Hausman	
0.0000	1.932968	Redundant Fixed Effects	Hypothesis 1-2
0.0000	41.057799	Hausman	
0.0000	2.293048	Redundant Fixed Effects	The main hypothesis 2
0.0000	54.368745	Hausman	
0.0000	2.039569	Redundant Fixed Effects	Hypothesis 2-1
0.0000	49.210781	Hausman	
0.0000	2.113142	Redundant Fixed Effects	Hypothesis 2-2
0.0000	42.436239	Hausman	
0.0000	2.055366	Redundant Fixed Effects	Hypothesis 2-3
0.0000	49.876844	Hausman	

Source: researcher findings

As the table (3) indicates, the possibility of Limer test is less than %5 in all primary and secondary hypotheses So, H0 will be rejected, and we should use clear methods. The next step is to determine the fixed effect model across random tests of Hausman test. According to primary and secondary hypotheses, the probability of Hausman test is less than %5 which is done based on Chi-square test. So, H0 will be rejected and this case mentions that there is a correlation between the estimated regression error and independent variables. According to the Hausman and F Limer test results, for parameter estimation and

primary and secondary hypothesis testing, fixed effects have been used.

**6.4 The summary of each analysis**

**6.4.1 Analysis hypothesis 1-1**

“The variability of stock returns has a significant effect on non-cash flow shock returns.”

Table (4), the results of hypothesis 1-1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\beta_0$	-0.196679	0.591750	-0.332369	0.7398
ROAVOL	-1.539435	0.774590	-1.987418	0.0476
SRVOL	-0.262876	0.059498	-4.418249	0.0000
SIZE	0.111369	0.042824	2.600640	0.0097
BMRATIO	-0.960845	0.084973	-11.30760	0.0000
NWC	0.331005	0.249055	1.329045	0.1846
R-squared	0.467370	F-statistic	3.325632	

Adjusted R-squared	0.326834	Prob(F-statistic)	0.000000
Durbin-Watson stat	2.333936		

Source: researcher findings

According to the results of table (4), possibility of t-statistic for variation coefficient of stock returns variable and the ratio of book value in non-cash flow shock returns is less than %5, so estimated coefficient of the mentioned variables is statistically significant and the estimated stock returns variable is 0/247945 on non-cash flow shock returns. According to t-statistic and p-Value, the significance of these variables in error level is %5. These findings indicate that variation coefficient of stock returns variable has significant impact on non-cash flow shock returns. And t-statistic variable of net working capital is more than %5 on non-cash flow shock returns. Therefore, the above mentioned estimated coefficients variables are not significant statistically, and then %95 of variables are not significant in the mentioned

model. Adjusted determined coefficient shows the explanatory power of the independent variables which can explain %32 of dependent variable. At the same time, by observing values of Durbin-Watson we can get that there isn't correlation among disturbing elements, because the values are about 1.5 to 2.5. F statistic likely indicates that the model is statistically significant and according to variation coefficient of stock returns variable and the ratio of book value on market value are significant in non-cash flow shock returns. So H0 hypothesis will be rejected, in other words it can be said that variation coefficient of stock returns variable has significant and inverse impact on non-cash flow shock returns.

#### 6.4.2 Analysis of the hypothesis 1-2

“The variability of company assets return has significant effect on non-cash flow shock return.”

Table (5), the results of hypothesis 1-2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\beta_0$	-0.295080	0.605569	-0.487277	0.6263
ROAVOL	-1.107305	0.786893	-1.407185	0.1602
SIZE	0.103634	0.043818	2.365098	0.0185
BMRATIO	-0.935484	0.086821	-10.77489	0.0000
NWC	0.158976	0.251916	0.631069	0.5284
R-squared	0.439936	F-statistic		3.015090
Adjusted R-squared	0.294025	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.343373			

Source: researcher findings

According to the results of table (5), possibility of t-statistic for variation coefficient, the size of company and the ratio of book value in non-cash flow shock returns is less than %5, so estimated coefficient of the mentioned variables is statistically significant and t-statistic variable of net working capital is more than %5 on non-cash flow shock returns. Therefore, the above mentioned estimated coefficients variables are not significant statistically, and then %95 of variables are not significant in the mentioned model. Adjusted determined coefficient shows the

explanatory power of the independent variables which can explain %29 of dependent variable. At the same time, by observing values of Durbin-Watson we can get that there isn't correlation among disturbing elements. F statistic likely indicates that the model is statistically significant. So H0 hypothesis will reject, in other words it can be said that has variability of company assets return significant impact on non-cash flow shock returns.

“Environmental uncertainty has significant impact on non-cash flow shock returns.” Sales variation coefficient has significant

#### 6.4.2 main hypothesis of the second analysis

Non-cash flow shock return.”

Table (6), the results of hypothesis 2-1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\beta_0$	63.36983	18.20579	3.480751	0.0006
CVS	14.20577	5.461797	2.600933	0.0097
CVCC	-1.579512	0.260497	-6.063449	0.0000
CVP	31.86209	11.79596	2.701101	0.0072
SIZE	0.109349	0.041475	2.636499	0.0087
BMRATIO	-0.850454	0.082787	-10.27277	0.0000
NWC	0.103093	0.237863	0.433414	0.6650
R-squared	0.501940	F-statistic		3.771723
Adjusted R-squared	0.368860	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.335168			

Source: researcher findings

According to the results of table (6), possibility of t-statistic for constant variation and sales variation coefficient of capital cost variable, the size of company and the ratio of book value in non-cash flow shock returns is less than %5, so estimated coefficient of the mentioned variables is statistically significant and the estimated coefficient of constant variation and sales variation coefficient of capital cost variable, is 11.96944 on non-cash flow shock returns. According to t-statistic and p-Value, the

significance of these variables in error level is %5. These findings indicate that constant variation and sales variation coefficient of capital cost variable has significant impact on non-cash flow shock returns. And t-statistic variable of net working capital is more than %5 on non-cash flow shock returns. Therefore, the above mentioned estimated coefficients variables are not significant statistically, and then %95 of variables are not significant in the mentioned model. Adjusted determined

coefficient shows the explanatory power of the independent variables which can explain %30 of dependent variable. At the same time, by observing values of Durbin-Watson we can get that there isn't correlation among disturbing elements, because the values are about 1.5 to 2.5. F statistic likely indicates that the model is statistically significant and according to sales variation coefficient of variable, the size of company and the ratio of book value on market value are significant in non-cash flow shock

returns. So H0 hypothesis will reject, in other words it can be said that sales variation coefficient of variable has significant impact on non-cash flow shock returns.

#### 6.4.2.2 Analysis of the hypothesis 2-2

"Variation coefficient of capital cost has significant correlation on non-cash flow shock returns."

Table (7), the results of hypothesis 2-2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\beta_0$	20.74118	10.10801	2.051955	0.0409
CVS	11.96944	5.720847	2.092251	0.0371
SIZE	0.103034	0.043683	2.358690	0.0188
BMRATIO	-0.923254	0.086521	-10.67089	0.0000
NWC	0.223855	0.249900	0.895777	0.3709
R-squared	0.443429	F-statistic		3.058103
Adjusted R-squared	0.298428	Prob(F-statistic)		0.000000
Durbin-Watson stat		2.307130		

Source: researcher findings

According to the results of table (7), possibility of t-statistic for variation coefficient of capital cost variable, the size of company and the ratio of book value in non-cash flow shock returns on market is less than %5, so estimated coefficient of the mentioned variables is statistically significant and the estimated coefficient of capital cost variation is 1/576414 on non-cash flow shock returns. According to t-statistic and p-Value, the significance of these variables in error level is %5. These findings indicate that variation coefficient of capital cost variable has significant impact on non-cash flow shock returns. And t-statistic variable of working capital is more than %5 on non-cash flow shock returns. Therefore, the above mentioned estimated coefficients variables are not significant statistically, and then %95 of variables are not significant in the mentioned model. Adjusted determined coefficient shows the explanatory power of the independent variables which can explain %35 of dependent

variable. At the same time, by observing values of durbin-Watson we can get that there isn't correlation among disturbing elements, because the values are about 1.5 to 2.5. F statistic likely indicates that the model is statistically significant and according to variation coefficient of capital cost variable, the size of company and the ratio of book value on market value are significant in non-cash flow shock returns. So H0 hypothesis will reject, in other words it can be said that variation coefficient of capital cost variable has significant impact on non-cash flow shock returns.

#### 6.4.2.3 Analysis of the hypothesis 2-3

"Net profit variation coefficient before tax has significant impact on non-cash flow shock returns."

Table (8), the results of hypothesis 2-3

Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\beta_0$	-0.550854	0.579088	-0.951245	0.3421
CVCC	-1.576414	0.264064	-5.969816	0.0000
SIZE	0.113157	0.042035	2.691970	0.0074
BMRATIO	-0.869441	0.083762	-10.37989	0.0000
NWC	0.117089	0.240410	0.487039	0.6265
R-squared	0.485290	F-statistic		3.618990
Adjusted R-squared	0.351195	Prob(F-statistic)		0.000000
Durbin-Watson stat		2.363094		

Source: researcher findings

According to the results of table (8), possibility of t-statistic for constant coefficient and net profit variation coefficient of coefficients variables before tax, the size of company and the ratio of book value in non-cash flow shock returns on market is less than %5, so estimated coefficient of the mentioned variables is statistically significant and the estimated coefficient of net profit variation coefficient before tax is 29/26524 on non-cash flow shock returns. According to t-statistic and p-Value, the significance of these variables in error level is %5. These findings indicate that net profit variation coefficient of changes before tax has significant impact on non-cash flow shock returns. And t-statistic variable of working capital is more than %5 on non-cash flow shock returns. Therefore, the above mentioned estimated coefficients variables are not significant statistically, and then %95 of variables are not significant in the mentioned model. Adjusted determined coefficient shows the explanatory power of the independent variables which can explain %30 of dependent variable. At the same time, by observing values of Watson we can get that there isn't correlation among disturbing

elements, because the values are about 1.5 to 2.5. F statistic likely indicates that the model is statistically significant and according to hypothesis net profit variation coefficient of variables before tax, the size of company and the ratio of book value on market value is significant in non-cash flow shock returns. So H0 hypothesis will reject, in other words it can be said that net profit variation coefficient of variables before tax has significant impact on non-cash flow shock returns.

## 7 Conclusion

The aim of this paper was to investigate the impact of cash-flow uncertainty and environmental uncertainty on non-cash flow shock returns at Tehran Stock Exchange from 2009 till 2013. After designing and testing hypothesis which was done separately for each, it was concluded that cash-flow uncertainty and variability of company stock returns has significant effect on non-cash flow shock returns; however, company assets return variability has no significant effect on non-cash flow shock

returns. Also sales variation coefficient and net profit variation coefficient before tax has significant effect on non-cash flow shock returns, rather this influence on capital cost of variation coefficient variables and stock returns variability is reverse and significant. As the results of hypothesis test indicated, there were significant correlation between environmental uncertainty and cash flow uncertainty along with non-cash flow shock returns, this shows that investors have been aware about importance of environmental uncertainty and cash-flow uncertainty in determining non-cash flow shock returns. Therefore based on the role of these variables on non-cash flow shock returns, it is recommended to investors, analysts of capital market and other users of financial statements that consider environmental and cash flow uncertainty level in investment and also decision making models to minimize their investing risk. It is also suggested to investors that pay attention to above mentioned points. Providing necessary training from Tehran Stock Exchange to stockholders, investors and other interested people in order to improve awareness about environmental uncertainty and cash flow uncertainty based on the determining of companies returns is essential. Researchers in their future investigation can study about environmental uncertainty and board of directors monitoring on firm function and also profit management of them so that they can be helpful in advancing science in this field. The results of this study based on Armat & Dastghir (2013), has accordance with correlation of environmental uncertainty and returns. The results of their study shows that environmental uncertainty makes a lot of fluctuation in profitability and function of company and managers using discretionary accruals to avoid the negative effects start to reported profit and also profits has significant correlation with returns.

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## PRESENTATION OF AN INTEGRATED MODEL TO IDENTIFY AND CLASSIFY BUSINESS INTELLIGENCE SKILLS

<sup>a</sup>MAHDI BAGHERI

<sup>a</sup>*Department of Management, Faculty of Humanities, Bandar Abbas Branch, Islamic Azad University, Bandar Abbas, Iran. (Corresponding Author)*

Email: <sup>a</sup>mbagheri.sbu@gmail.com Tel: +98-9173615796

Abstract. Business Intelligence has been proposed as a new approach in enterprise architecture based on the speed in data analysis in order to make accurate and smart business decisions in the shortest time possible and not as a tool or a product or even system. The objective of this study is determination of business intelligence skills in organizations as well as identification of relations and modeling of these elements. Identification of business intelligence skills and determination of mutual relations and their interactions have been carried out by evaluation of related literature and expert opinions. Then the relations between these skills are identified using Interpretive Structural Modeling and a structural model of business intelligence skills within organizations is offered based on the obtained relations.

Keywords: Business intelligence, Interpretive Structural Modeling, Business

### 1 Introduction

New technologies are developing at a dizzying speed, in a way that the societies in general and market in specific are searching for tricks to guarantee their survival in this chaotic field with indescribable accelerate. Organizations must accept that their philosophy of life has changed and survival no longer means having sustained profitability and must look for competition and its tools because today few of the companies in this field act in traditional way and away from new rules and companies must be fluent in new rules in order to remain competitive or move one step forward hardly and skillfully so that maybe one day they can create a new rule themselves. Thus, mastery of new technologies such as business intelligence in business is considered an inevitable necessity requirement. The objective of this study is also nothing more than reminding the growing and unstoppable trend of innovation in technology and changes in methods of business, developments which has occurred in this revolution and changes in procedures have and will cause conflicts and deep splits between tomorrow and today.

Even though there have been a lot of researches about the literature of business intelligence, there has been no study about identification of necessary and influencing skills on business intelligence and interaction of these relations as well as obtaining the effectiveness of these skills. Thus, the researchers are planning to submit this article to decrease the mentioned research gap.

### 2 Research literature

#### 2.1 Overview of business intelligence

Business intelligence which contains a more major form such as commercial or non-commercial (nonprofit and military) use is a wide range of applications and technology for collection of data and knowledge for creation of query in order to analyze the firm to have accurate and smart business decisions. Business intelligence has been formed based on a firm architecture and analyzes the trade data and makes accurate and smart decisions based on online analytical processing (OLAP) (Peter, 2010). Business Intelligence is considered not as a product or a system but rather as a new architecture and approach which of course includes a set of practical and analytical applications which helps in decision making for smart business activities according to operational and analytical databases (Barjis, 2008). But from another perspective of Business Intelligence: from the perspective of Architecture and Process, the Business Intelligence is considered as a framework which increases the efficiency of organization and integration of processes and

ultimately focused on decision-making processes at different organizational levels (Bandara et al., 2007). Market believes the Business intelligence to be a tool for competitive advantage which is monitoring and analyzing the market and customers. From the perspective of technology, Business Intelligence is an intelligent system which is considered as intervention points in the brain of hardware and software by accurate data processing. But simpler expression is that business intelligence is nothing but the process to raise the profitability of the organization in the competitive market with intelligent use of data in decision making process. If the concept of business intelligence is understood and transferred correctly, it will suddenly increase the expectations of managers and not meeting these expectations will cause issues such as lack of confidence of people, especially managers to this system because business intelligence is just looking to shorten the course of the inquiry in information and it cannot provide a strategy or proposal on its own and without proper information. Determination of business trends which is among the consequences of business intelligence makes the organization to focus on the major objectives without wasting time and money in other paths (Hung, 2006).

#### 2.2 Necessary skills to promote necessary skills

For the system to function correctly with the Business Intelligence, the relations between people and information and process implementation must be carefully evaluated in order to identify the opportunities of who shall receive which information (Melao and Pidd, 2000).

Business intelligence in the organization considers all users as well as their relations so that the enterprise value chain is covered to perfection and no process be omitted. Special skills should be arranged to implement any kind of improvement process in organization among which the macro processes such as business intelligence need special attention (Bandara, 2005).

Business skills include business process and communication with organizational strategy along with transformation processes which is very important in determining the enterprise policy (Shi, 2008). Information technology skills which technically help in management change and support analytical methodology should also exist sufficiently in the organization (Smith and Fingar, 2003). Other skills entitled analytical skills including summarizing the analysis and correct exploring and explaining are as important as other skills and these three types of skills have intersection points in some firms which is considered to be exactly the point of promotion of business intelligence and its majority will certainly lead to more business intelligence across the organization and vice versa (Vergidis, 2008).

#### 3 Interpretive structural modeling and development of the model

Interpretive structural modeling is a technique which makes the evaluation of complexity of the system possible and forms the system in a way that it can be easily understood. Interpretive structural modeling process converts non-transparent and vague mental models of the system to clear and evident models which are useful for many purposes. This approach is an interactive learning process in which a series of different elements are structured in the form of a comprehensive systematic model (Ravi and Rajat, 2008). Interpretive Structural Modeling is a suitable technique to analyze the effect of a factor on the other factors. This methodology evaluates the type and direction of the complex relations between elements of a system. In other words, this technique is a means by which the group of decision-makers can overcome the complexity of an issue. Among the advantages of this method are its comprehensibility for a wide range of users, its integration in conjunction with expert opinions and its applicability in the study of complex systems which contains a large number of components (Adeyemi and Aremu, 2008).

**3.1 Self-interaction structural matrix**

The first step in the Interpretive Structural Modeling is the analysis of conceptual relations between factors. In order to determine these factors, factor are evaluated pairwise. Self-interaction structural matrix is formed through this method (Ravi and Rajat, 2005). Following four symbols are used for this purpose:

V: factor i helps in realization of factor j.

A: factor j helps in realization of factor i.

X: factors i and j help in realization of each other.

O: factors i and j have no relation with each other.

The opinion of 14 experts familiar with the subject was used in order to determine the relation between factors. Self-interaction structural matrix of this research has been shown in table 1.

Table 1: Self-interaction structural matrix

Business intelligence skills	14	13	12	11	10	9	8	7	6	5	4	3	2
1. Recognizing the need	V	V	V	V	V	V	V	O	V	O	V	V	V
2.Connection with organizational strategies	O	O	V	V	A	A	O	V	V	V	V	A	
3.Summarizing the Analysis	V	V	O	V	X	X	V	O	V	V	V		
4.Development of options for decision-making	O	V	X	X	A	A	O	O	V	V			
5.prioritization of expectations	V	V	A	A	A	A	V	O	V				
6. identifying data	V	V	A	A	A	A	X	X					
7. Data Extraction	O	V	O	A	O	O	X						
8. data integration	V	O	A	O	A	A							
9. Explore and Explain	O	V	V	V	X								
10.transformation processes	V	O	V	V									
11. The results of the monitoring	O	O	X										
12.Change Management	O	V											
13.data storage	V												
14.Data Retention													

**3.2 Availability Matrix**

The above mentioned symbols must be converted to binary (one and zero) symbols in order to achieve the primary availability Matrix. The primary availability Matrix is obtained using this method. The following rules are used to form this matrix:

- In case of having V in (i, j) input of self-interaction matrix, (i, j) input in availability matrix is one and (j, i) input is zero.
- In case of having A in (i, j) input of self-interaction matrix, (i, j) input in availability matrix is zero and (j, i) input is one.
- In case of having X in (i, j) input of self-interaction matrix, (i, j) input in availability matrix is one and (j, i) input is one.
- In case of having O in (i, j) input of self-interaction matrix, (i, j) input in availability matrix is zero and (j, i) input is zero.

The final availability matrix will be obtained after achieving the initial availability matrix by adding the transmissibility to the obtained relations. This matrix has been shown in Table 2. Transferability indicates that if factor A affects factor B and factor B affects factor C, the factor A affects factor C. The dependence and influence of each of the key factor has also been shown in this matrix. Influence is obtained from the sum of ones in each row and dependence is obtained from the sum of ones in each column.

**3.3 Level segmentation**

The set of Input and output for each factor will be obtained in this step using the final Availability Matrix. The set of output for each factor contains the factor itself and factors which affect those and the set of inputs for each factor contains factor itself and factors which are affected by those (Vittal, 2008).

Table 2: The final Availability Matrix

business intelligence skills	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1	1	1		1	0	1	1	1	1	1	1	1
2	0	1	0	1	1	1	1	0	0	0	1	1	0	0
3	0	1	1	1	1	1	0	1	1	1	1	0	1	1
4	0	0	0	1	1	1	0	0	0	0	1	1	1	0
5	0	0	0	0	1	1		1	0	0	0	0	1	1
6	0	0	0	0	0	1	1	1	0	0	0	0	1	1
7	0	0	0	0	0	1	1	1	0	0	0	0	1	0
8	0	0	0	0	0	1	1	1	0	0	0	0	0	1
9	0	1	1	1	1	1	0	1	1	1	1	1	1	0
10	0	1	1	1	1	1	0	1	1	1	1	1	0	1
11	0	0	0	1	1	1	1	0	0	0	1	1	0	0
12	0	0	0	1	1	1		1	0	0	1	1	1	0
13	0	0	0	0	0	0	0	0	0	0	0	0	1	1
14	0	0	0	0	0	0	0	0	0	0	0	0	0	1

The common parts of these sets are determined for each of the factors after determination of the sets of input and output. The common set for each factor is obtained using this method. Factors with exact same output and common set are placed at the

highest level of hierarchy of interpretive structural model. As it can be observed in table 3, factors 1, 3, and 6 are at the highest level of the model.

Table 3: the first repeat

Criteria	Output set	Input set	Common
1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1	1
2	2, 4, 5, 6, 7, 8, 11, 12, 13, 14	1, 2, 3, 9, 10	2
3	2, 4, 5, 6, 7, 8, 11, 12, 13, 14	1, 3, 9, 10	3, 9, 10
4	4, 5, 6, 7, 8, 11, 12, 13, 14	1, 2, 3, 4, 9, 10, 11, 12	4, 11, 12
5	5, 6, 7, 8, 13, 14	1, 2, 3, 4, 5, 9, 10, 11, 12	5
6	6, 7, 8, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8
7	6, 7, 8, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8
8	6, 7, 8, 13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8
9	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1, 3, 9, 10	3, 9, 10
10	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1, 3, 9, 10	3, 9, 10
11	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1, 3, 9, 10	4, 11, 12
12	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	1, 3, 9, 10	4, 11, 12
13	13, 14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	13
14	14	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	14

When the factors of the highest level are determined in the first repeat, these factors must be separated from other factors and in other words be removed. This will be repeated until all the level

of all factors is determined. 8 repeats took place in this research and 2<sup>nd</sup> to 8<sup>th</sup> repeats are shown in table 4.

Table 4: 2<sup>nd</sup> to 8<sup>th</sup> repeats

repeats	Criteria	Output set	Input set	common	Level
2	13	13	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	13	2
3	6	6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8	3
3	7	6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8	3
3	8	6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	6, 7, 8	3
4	5	5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	5	4
5	4	4, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	4, 11, 12	5
5	11	4, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	4, 11, 12	5
5	12	4, 11, 12	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	4, 11, 12	5
6	2	2	1, 2, 3, 4, 9, 10	2	6
7	3	3, 9, 10	1, 3, 9, 10	3, 9, 10	7
7	9	3, 9, 10	1, 3, 9, 10	3, 9, 10	7
7	10	3, 9, 10	1, 3, 9, 10	3, 9, 10	7
8	1	1	1	1	8

### 3.4 Forming the interpretive structural model

The initial interpretive structural model is drawn by considering the transfer-abilities given the level of each of the skills as well as the final availability matrix. The final interpretive structural model is formed by removing the transfer-abilities. The final obtained model has been shown in figure 1. The final obtained model in this research has been from by 8 different levels. Skills at higher levels of hierarchy have less influence. Data maintenance skills was placed at the highest level of the hierarchy. In fact, it can be stated that this skill is mainly derived from lower levels' factors.

### 3.5 Analysis of Analysis of influence – dependency

Factors are divided into four groups in this section with respect to the influence and dependency. The first group consists of autonomous factors (area 1), the second group is related to affiliated factors (area2), the third group is related to bonding factors (area3) and the fourth group is related to influential factors (area4). Skills with high influential power are called key skills. It is clear that these skills are placed in one of the two influential or bonding groups. Influence and dependency of each of the key skills of business intelligence have been shown in Table 2. The diagram of influence – dependency is formed based on this matter and has been shown in figure 2.

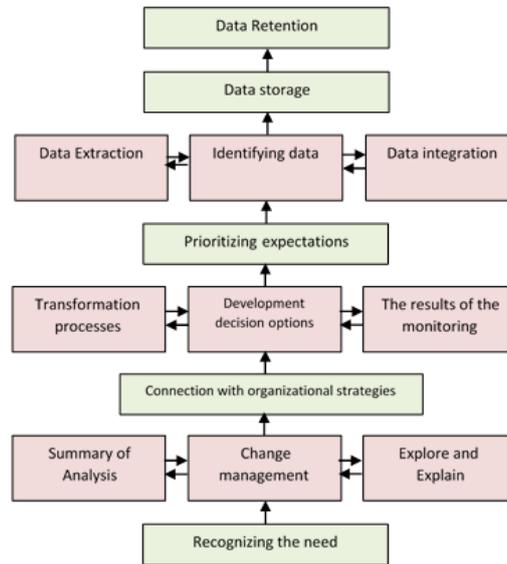


Figure 1. Structural model of business intelligence skills

influence	14	1												
	13			3, 9, 10										
	12													
	11			Area 4								Area 3		
	10				2									
	9							4, 11, 12						
	8													
	7													
	6								5					
	5											6, 7, 8		
	4			Area 2								Area 2		
	3													
	2												13	
	1													14
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Dependency													

Figure 2. influence – dependency diagram

**4 Discussion and conclusion**

This article tries to evaluate the behavior of business intelligence skills in addition to identification of these skills. Interpretive structural modeling approach has been used in achieving this goal. A model of influencing method of these skills and relation between them has been obtained in this regard. The mentioned model is formed of 8 levels. Skills at higher levels had lower influence. Lower levels have higher influence rate. Results of the research show that identification of needs is at the lowest level and all factors affect the higher levels. This indicates that the identification of needs is the most important skill in business intelligence in organizations. Business intelligence results in change management, exploring and explaining and summarizing analysis. Thus, these skills provide the context of using relation with organizational strategies and facilitate the activities related to the development of options for decision-making, the results of monitoring and transformation process. The result of this can prioritize the expectations. Prioritization of the expectations can

also provide a context for data identification, integration and extraction. Thus, these skills provide the context for using data storage. This step can lead to data storage.

The results of the analysis of influence- dependency also show that skills are divided into our different areas. There was no skill in the first area which consisted of autonomous skills. Skills such as prioritization of expectations, data identification, data maintenance, data integration, and data storage and data extraction are in the second area. These skills have high dependency and low influence. The third area also covers skills such as decision-making options change management and results of monitoring. These factors or skills have high dependency and influence and are called bonding factors. Skills such as recognizing the need, relation with organizational strategies, and a summary of the analysis, exploring and explaining and transformation processes are in fourth area. This analysis shows that skills in 3<sup>rd</sup> and 4<sup>th</sup> areas have a high influence. Thus, these

groups have key skills and organizations need to pay more attention to these groups of factors in Business intelligence.

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## ASSESSING THE EFFECTIVENESS OF TRAINING PACKAGE AND GROUP COUNSELING WITH FRAMEWORK OF SKILLED HELPER MODEL ON PROMOTING THE PHYSICAL AND EMOTIONAL WELLNESS

<sup>a</sup>MOJTABA TAMADONI, <sup>b</sup>MASOUD JANBOZORGI,  
<sup>c</sup>MASOUD AZARBAIJANI, <sup>d</sup>GHOLAM ALI AFROOZ,  
<sup>e</sup>SEYED KAZEM RASOULZADEH TABATABAEI.

<sup>a</sup> *Researcher, Counseling Department, Imam Reza International University. Mashhad. Iran.*

<sup>b</sup> *Associate Professor, Psychology Department of Research Institute Of Howza and University. Qom. Iran.*

<sup>c</sup> *Associate Professor, Psychology Department of Research Institute Of Howza and University. Qom. Iran.*

<sup>d</sup> *Professor of Psychology, University of Tehran, Iran.*

<sup>e</sup> *Associate Professor, Psychology Department of Tarbiat Modares University. Tehran. Iran.*

Email: <sup>a</sup>tamadonim336@gmail.com, <sup>b</sup>psychjan@gmail.com,  
<sup>c</sup>mazarbayejani110@yahoo.com, <sup>d</sup>afrooz2@ut.ac.ir,  
<sup>e</sup>rasool1340i@yahoo.com

**Abstract.** University provides a valuable opportunity for facilitating the knowledge, skills, and beliefs that develop wellness to last a lifetime. So a sample including 60 students were selected with convenience sampling method. The results showed that mean scores of posttest is significant at the level of ( $P=0.001$ ) for physical fitness ( $F=7.78$ ), nutrition ( $F=7.78$ ), self-care and safety ( $F=8.31$ ), emotional management ( $F=12.05$ ) and Sexual and emotional awareness ( $F=4.13$ ). Also LSD post hoc test showed that the first experimental group has obtained the improvement compared to the second experimental group and the control group in both variables and this hypothesis that execution of training and counseling package with skilled helper model reinforces two variables of physical and emotional wellness of students was confirmed.

**Key Words:** Wellness, TestWel, Physical Wellness, Emotional Wellness, Skilled Helper Model.

### 1 Introduction

The notion of Wellness has grown from conceptualizations which have attempted to capture a positive perspective of health which although no longer defined simply as freedom from illness, still connotes a reactive, or negative-reducing notion of enhancing human functioning (Cowen, 1991; Hattie, Myers, & Sweeney, 2004; Swarbrick, 2006; Wissing, 2000). Wellness is a dynamic state of being in which a person's awareness, understanding and active decision-making capacity are aligned to some extent with their values and aspirations for a more satisfying life. A Wellness lifestyle is the commitment and approach adopted by an individual aiming to enhance this alignment to reach their highest potential (Ardell, 1986; Dunn, 1961).

The outcome of a Wellness lifestyle is a capacity to contribute in positive and meaningful ways to one's community, society and the welfare of the earth. An individual who adopts a Wellness lifestyle aims to adapt and balance the multiple dimensions of their health and well-being in concert with others and their environment. On a continuum between low-level Wellness and high-level Wellness, individuals continually move between various states of physical, psychological and spiritual harmony and vary in their capacity to reach aspirations and goals (Adams, Bezner, & Steinhardt, 1997; Swarbrick, 2006; Travis & Ryan, 2004; Wissing & van Eeden, 2002). Maslow's notion of the authentic individual as one who is "a little more a member of the species and a little less a member of the local group" (Maslow, 1999) poignantly reflects the possibilities for the Wellness of humanity as a whole as a by-product of the Wellness of the individual.

Research on Wellness and psychological well-being of college students in the US has shown that there is a significant positive relationship between adherence to wholistic Wellness models and psychological well-being (Hermon & Hazler, 1999) and global Wellness measures have positive correlations with both

self-confidence and the overarching process of identity development in college students (Murray & Miller, 2000).

Ford (2015) shows that training environment tissue and increase of awareness and behavior in order to wellness, encourage students in decisions related to health. However, feeling that they have to wellness is important and finally students need support to show fortune to wellness. Extensive researches in the field of wellness have achieved many developments, provided valuable experimental data and created numerous and complex conceptualizations of this structures (Goss, 2011).

Fundamentally, initially wellness has been attributed to the physical aspect and early evaluation focused on this dimension. There were cases in the physical aspect such as physical activity, nutrition and self-care. According to Sidman, D'Abundo, and Hritz (2009), "physical wellness has been defined as the ability of the body to function effectively and meet the demands of daily life" (p.2). This includes: "cardiovascular endurance, strength and flexibility, in addition to healthy nutrition, sound medical care, and personal safety" (Sidman et al., 2009).

Cooper (1968, 1970, 1975, 1977) is well known in this field and studied the relationship of exercise to health and longevity, particularly how exercise reduced the risk of heart disease. His findings revolutionized the fitness industry's understanding of health and wellness and advanced the understanding of the relationship between living habits and health (as cited in Miller & foster, 2010). Among this, sports companies increased the public interest to improve physical health through presence in sports clubs and weight loss plans.

Helliwell (2005) found optimism about good health resulted in higher wellness scores. He also found that age was of great interest because one might assume happiness decreases with age, whereas in fact 18-24 year olds and 55-64 year olds are equally the happiest of all age groups with 35-44 year olds being the least happy. Even 65 year olds and above were a lot happier than this 35-44 year old age group.

Ryff & Singer (2006) found that avoiding negative behaviors such as smoking and inactive living as well as somatotype affects physical wellness with benefits including better autoimmune functioning. Ryan & Deci (2001) noted that physical wellness, however, does not always correlate to one's sense of well-being: a person can be ill and have a positive state of mind while a physically healthy person can experience a poor sense of well-being.

Emotional wellness is conceptualized as awareness and control of feelings, as well as a realistic, positive, self-valuing and developmental view of the self, ability to deal with conflict and life circumstances, coping with stress and the maintenance of fulfilling relationships with others (Adams et al., 1997). Helliwell (2005) considered emotional wellness as a continual process that included an awareness and management of feelings, and a positive view of self, the world, and relationships.

Renger et al., (2000) defined emotional wellness as related to one's level of depression, anxiety, well-being, self-control, and optimism. From a proactive view, emotional wellness reflects one's ability to experience satisfaction and curiosity, as well as enjoyment in life, and being able to anticipate the future with a positive or optimistic outlook. Ryan & Deci (2001) describe self-determination theory (SDT) as another perspective that fits within the concept of self-realization as a central definitional aspect of wellness and that SDT specifies both what it means to actualize the self and how this can be accomplished. This involves the fulfillment of basic psychological needs autonomy, competence, and relatedness, resulting in psychological growth

(e.g. intrinsic motivation), integrity (e.g. internalization and assimilation of cultural practices), and well-being (e.g. life satisfaction and psychological health), as well as the experiences of vitality (Ryan & Frederick 1997) and self-congruence (Sheldon & Elliot 1999).

Roscoe (2009) specifically states, "Emotional wellness includes experiencing satisfaction, interest and enjoyment in life, as well as having a positive anticipation of the future, or having an optimistic outlook". Emotional wellness is specifically related to a person's feelings and acknowledging those emotions are present (Roscoe). Regarding emotional wellness of college students, Conley, Travers, and Bryant (2013) state, "college brings a host of new demands and challenges; it is not surprising that this transition entails elevations in psychosocial distress and adjustment difficulties". Being able to effectively deal and cope with these emotions is essential in becoming emotionally well (Conley et al., 2013). Typically, the largest area of emotional wellness lacking for first-year students is coping with stress (Conley et al., 2013). Howe and Strauss reported the two greatest worries millennial students face are grades and college admissions (as cited in Bland, Melton, Welle, & Bigham, 2012). Bland et al. (2012) state, "this [grades and college admissions] is in comparison to AIDS and violent crime 10 years ago or nuclear war 20 years ago". Therefore it is easy to see why Hales declares college has "been considered one of the most stressful times in a person's life".

On the other hand, Hicks and Heastie (2008) explain, "life transitions, such as moving away from home and going to college, create valuable opportunities for growth, change and individuating from one's family of origin" (as cited in Bland et al., 2012). Bland et al., describe, "the challenge for persons interested in the well-being of this age group is two-fold: to equip these young adults with effective tools that will reduce stress when present and also give them the strategies of effective coping mechanisms". Furthermore, "college students who develop essential skills in psychosocial wellness and stress management are likely to adapt to college most successfully" and "the transition to college offers a prime opportunity for promoting psychosocial strengths and skills that can chart a trajectory toward lifelong wellness, adjustment, and success" (Conley et al., 2013).

Skilled helper model theoretically has been extracted from three different theories including: Karkhuf theory about helpers with functioning at a high level (helpers possess skills like sympathy, respect, objective-oriented, consistent, self-disclosure, and encounter-maker and with urgency skills); Strong's social influence theory (helping is a social influence process; because clients consider therapists as a specific reference. This influence reaches to the highest level when possesses conditions of seriousness and authority and also with collaboration, empowerment, freedom and equality) and Albert Bandura's social learning theory (that clients learn skills through understanding the helping learning process and transition of

expectations of suitable self-efficacy or expectation to achieve goals with useful behaviors.) (Nelson, 2007)

The goal of skilled helper model is help to clients for transition of skills and enough awareness of solving current and future problems. Helper makes a treating union based on a warm and accepting relationship with collaboration to facilitate transition of client. A skilled helper helps the client to accept the responsibility of changing to a more effective person in life and develop his inner resources by helps him to formation of action plan (Nelson, 2007).

Also the skilled helper as a facilitator helps client to achieve new skills and awareness for new situations he plans realistic and appropriate goals (which is counterpart with solving problem skills of that) for clients, encourages them to become autonomous and transition of solving problem skills; helps them to develop their inner abilities and utilize outer resources and group support, helps them to identify their poetical abilities and as a facilitator stimulates them to develop goals which are certain, Measurable, attainable, realistic, ethical, reasonable and rational. In addition the skilled helper is sensitive and aware to nonverbal communications of clients in all conditions (Egan, 2013).

Egen's skilled helper approach encourages clients to accept active commentator role of the world, give meaning to actions, events and situations, encountering and overcoming the challenges, explore difficult problems, searching for opportunities and writing goals. Simply success usually is the result of person's effort through positive activities transition of problem solving strategies (Egan, 2013).

**2 Methodology**

The plan of this research is from the type of semi-experimental research plans with two experimental groups and a control group. 60 volunteers of participant in counseling and training classes were divided into three groups and they were placed in three situations randomly. The first group participated in counseling and training class with the framework of the skilled helper model. This group experienced all decuple steps of the skilled helper model to improve wellness.

The second group was placed with random replacement in a situation that just received information about wellness without framework of skilled helper model and usual methods were used to provide information like speech. The third group was considered as the control group and didn't receive any informational and training framework about wellness. Training the wellness was in six weeks and included an introduction class for the skilled helper model and execution of TestWel questionnaire in the first week and execution of steps and stages of the skilled helper model from the second week. Students group under training and consultation followed and planned the ideas and discussions about improvement of wellness (table 1).

Table 1: Demographic features of the sample group

Variable	Experimental group 1		Experimental group 2		control group	
	n	%	n	%	n	%
Sex						
Female	13	0.65	11	0.55	14	0.70
Male	7	0.35	9	0.45	6	0.30
	20		20		20	100

The five subscales of the TestWel questionnaire the version of the National Wellness Institute (2004) was chosen for pretest and posttest survey as the main tool to measure students' wellness. The first part of the questionnaire includes information on the participants' demographic features such as age, sex, marital

status, training level and occupational status. The subscales of TestWel questionnaire have 44 items and it has been chosen because of alignment with the curriculum and the availability. This tool is executed to measure the 5 domains wellness (table 2).

Table 2: five subscales and validity of physical and emotional wellness test

Questionnaire	Scales	Validity	Type of Reply
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Five subscales of wellness test	Scale 1 Physical fitness Scale 2 Nutrition Scale 3 Self-Care and safety Scale 6 Sexual and emotional awareness Scale 7 Emotional management	(Owen, 1999; Palombi, 1992)	1. Never or almost never 2. Sometimes 3. Often 4. In most cases, 5. always or almost always
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Although most of the Wellness inventories have been developed and validation studies conducted in the United States with university student populations (Hattie et al., 2004; National Wellness Institute, 2004; Owen, 1999; Palombi, 1992) there neither appears to be similar inventories specifically customized for the Iranian context nor are there instances of studies designed to test reliability and validity with Iranian university students. Goss (2011) with factor analysis, and has identified its components. According to the research and theoretical analysis on last survey-based validity and reliability had been acceptable

(Goss, 2011). Alpha coefficient of whole scale in evaluating the Goss (2011) had been 0.93 and Palombi (1992), only in eight cases of twelve subscale of the questionnaire had been acceptable. In the treatise the alpha coefficient was estimated as 0.95 for the whole scale. Alpha coefficient of the research of Goss (2011) for the pretest and posttest is obtained as 0.93 and 0.96 respectively. That it indicates acceptable internal consistency. These coefficients in the ongoing research were estimated 0.88 and 0.94 to pretest and posttest, respectively (table 3).

Table 3: subscales, Validity for each in researches and the ongoing research

	subscales	Items		Comparison Study 1	Comparison Study 2	Comparison Study 3	Comparison Study 4
		others	Tamadoni	Owen (1999) (N = 185)	Botha and Brand (2009) (N = 89)	Goss (2011)	Tamadoni 2016 (N = 371)
1	Physical fitness	10	8		0.69	0.684	0.738
2	nutrition	10	7		0.67	0.655	0.537
3	self-care and Safety	10	10		0.76	0.618	0.665
4	Emotional Management	10	10	0.77	0.81	0.791	0.727
5	Sexual awareness	10	9	0.77	0.84	0.769	0.751

### 3 Findings

In this section data obtained from the execution of counseling and training package with framework of helper model is analyzed to improvement of wellness. Two methods as follows have been used to analyze the variables that were measured of counted and also to convert experimental data as a systematic collection:

- 1) Description of data on the basis of conventional methods, in the descriptive statistics, and
- 2) the interpretation of results of test and hypotheses of the research on the basis of covariance analysis test

Given that subjects of all three groups of research in the pretest and posttest stage responded to wellness questionnaire, in this section, at first the descriptive features of scores has been presented for all three groups in pretest and then posttest (table 4).

Table 4: descriptive statistics features of the studied variables in the pretest

Variables	E1		E2		Control	
	Mean	Sd	Mean	Sd	Mean	Sd
Physical fitness	30.40	3.2	50.41	1.5	70.40	2.6
nutrition	80.28	9.3	90.22	4.4	20.22	8.3
self-care and Safety	85.44	9.2	45.35	2.5	50.35	0.6
Emotional management	40.32	7.4	55.31	1.4	15.33	7.4
Sexual and emotional awareness	50.40	5.4	60.39	6.7	55.34	0.5

Note: E1 = Group with framework of skilled helper model, E2 = Group without framework

As can be seen in Table 4, the average of the three groups, especially in variables of physical fitness is almost equal to each other. Average of the score of self-care and Safety in the control group (22.20) is lower than the other two groups. In addition, the

average of group of E1 in self-care and Safety variable (44.85) to some extent is more of the two groups and its standard deviation (2.9) is lower (table 5).

Table 5: descriptive statistical features of the studied variables in posttest

Variables	E1		E2		Control	
	Mean	Sd	Mean	Sd	Mean	Sd
Physical fitness	25.48	4.4	90.42	5.6	95.40	7.4
nutrition	80.28	9.3	90.22	4.4	20.22	8.3
self-care and Safety	85.43	9.2	45.35	2.5	50.35	0.6
Emotional management	60.44	8.3	35.39	7.5	25.36	5.4
Sexual and emotional awareness	50.40	5.4	60.39	6.5	55.34	0.5

Note: E1 = group with framework of skilled helper model, E2 = group of without framework

In general, the means in Table 5 show that the training package with skilled helper model and also providing information without framework of skilled helper model had an impact in improving wellness of subjects. However, at this stage it is unclear whether these differences is significant or not. For this question it is necessary to analyze the data in relation to the research hypothesis.

**4 Data analysis in relation to the research hypothesis**

Research hypothesis: a sample group that in situation of training and counseling package of wellness with framework of skilled helper model achieves higher level of physical and emotional wellness compared to the Frameless group and control group.

Covariance analysis was used to test this hypothesis due to the existence of an interval dependent variable and pretest and posttest. It was necessary to covariance analysis, the model assumptions, homogeneous of beta coefficients and variances to be investigated at first .the results of three groups comparison of linear combination of components, and each of which by using multivariate covariance analysis of MONCOVA was used given that used scale has five subscales. Before that Mbox test is used to evaluate the being significant.

Table 6: Mbox results for significance of means

Variable	F	df1	df2	P
Overall scores	229.238	132	8715.93	0.03

Due to the significance of Mbox test among the special values of MANCOVA the Vpillai is used that is more resistant compared to violations of the assumptions.

Table 7: Vpillai Analysis for evaluating the specific values

Variable	Value	F	P
Physical fitness	0.268	1.199	0.322
nutrition	0.362	1.857	0.080
self-care and Safety	0.268	0.645	0.778
Emotional management	0.148	0.569	0.841
Sexual and emotional awareness	0.129	0.484	0.901

Table 7 shows that the difference there are significant differences between the three groups in the linear combination of dependent variables that were scale components. Thus, analysis of covariance test was used to determine the difference between the groups in subscales of dependent variable. But first its

assumption was investigated by Levene test to homogeneity of variance equality.

Table 8: Summary of Leven test for equality of variances in the means of posttest

Variable	F Levene	P
Physical fitness	1.26	0.291
nutrition	0.843	0.436
self-care and Safety	2.412	0.099
Emotional management	1.312	0.277
Sexual and emotional awareness	2.770	0.071

As can be seen in Table 8 equality of variances test with Leven test in the posttest scores in the all three groups and after the execution of counseling and training package with framework of skilled helper model is still equal with each other. So it can be

concluded that the main assumption of analysis of variance is established for its execution. Thus, analysis of covariance test was used to determine the difference among the groups in the all subscales of the dependent variable.

Table 9: Results of analysis of covariance related to physical and emotional subscales

Source and variable	df	SS	MS	F	$\omega^2$
Physical fitness	2	237.57	218.79	7.78	0.001
nutrition	2	344.02	172.01	7.78	0.001
self-care and Safety	2	681.13	360.56	8.31	0.001
Emotional management	2	530.25	237.12	12.05	0.001
Sexual and emotional awareness	2	323.68	161.98	4.13	0.022

Table 4-18 shows the differences between groups in interval of wellness component is significant in following LSD test was used to determine differences in groups.

Table 10: comparison of means the three groups by using LSD test

Variables		Mean differences	Deviation	p	Comparison
Physical fitness	2 of 1	4.25*	1.92	0.032	3 = 2 > 1
	3 of 1	7.13*	1.82	0.001	
	3 of 2	2.89	1.91	0.139	
nutrition	2 of 1	5.40*	1.48	0.001	3 = 2 > 1
	3 of 1	5.76*	1.40	0.001	
	3 of 2	3.36	1.47	0.907	
self-care and Safety	2 of 1	5.17*	2.32	0.032	3 = 2 > 1
	3 of 1	8.90*	2.19	0.032	
	3 of 2	3.74	2.31	0.001	
Emotional management	2 of 1	4.26*	2.32	0.032	3 = 2 > 1
	3 of 1	7.87*	2.19	0.032	
	3 of 2	3.62*	2.31	0.001	
Sexual and emotional awareness	2 of 1	4.23	2.27	0.052	2 = 1
	3 of 1	5.94*	2.14	0.008	3 > 1
	3 of 2	1.41	2.26	0.535	3 = 2

LSD post hoc test results showed that the four subscales (except of Sexual and emotional awareness), group that have participated in training and counseling class with the framework of (E1) skilled helper model have achieved higher level of wellness compared to without the framework experimental group (E2) and the control group. However, differences in the experimental group with framework of (E1) are more significant with the control group. In addition, the without framework experimental group (E2) with the control group is not significant in most subscales (except of Emotional management). In other words, the means of experimental group (E2) and the control group has remained unchanged.

## 5 Conclusion

Literature investigating the impact and purpose of wellness training supports its potential for creating positive change in the personal and professional lives of students, particularly in wellness. Gaps in the current literature, however, present challenges to educators and institutions. There is a paucity of research relating to the empirical measurement wellness education. In fact, the aim of this study was to assess wellness training with skilled helper model (Egan, 2013) in order to promote in the students.

Performing the pretest to determine the various aspects of wellness scores showed that most students in the total score of the questionnaire and its subscales are in average and under average. In fact, the quantitative data showed the wellness scores in the both groups is only slightly above average. The total score contained the total of five scale of TestWel questionnaire that was executed among students. These findings are supported from similar studies that have been executed based on the hexagonal Hitler model of the wellness (DiMonda, 2005).

Average grade in the wellness scores is consistent and with conducted researches on inappropriate situation of wellness in the universities and shows that act to improve biological healthy is important for students and can be considered a plan to improve biological healthy as a possible target. Researchers warn that the healthy status, physical and mental well-being, quality of life and wellness is undesirable in the universities and should be found a solution to improve it (Goss, 2011 and Tamadoni, 2005).

Evaluating subscales independently showed that student's participant in the class with framework of skilled helper model in dimension of physical fitness and nutrition have shown significantly improvement. These findings suggest that the

execution of a training package has been effective to improve the ongoing status of students. There are studies in line with this study that act to justify the education to improve healthy life in physical dimension (Sidman et al., 2009; Cooper, 1977; K Ranger et al., 2000; Ryan and Deci, 2001; ryff and Singer, 2006; Travis and Ryan, 2004).

Evaluating emotional wellness with two subscales of emotional management and sexual and emotional awareness also showed the covariance analysis is significant and execution of the package has helped to improve the biological healthy situation of students. This finding is consistent with studies that have considered into attention the emotional factor (Hu, Liebens, & Rao, 2008).

Generally, execution of counseling and training package with skilled helper model framework was proved on the wellness aspects of significant change. However, students who participated in the class without the framework of training package had no significant difference with the control group except in emotional management. Mean comparison by LSD test also showed that the group with the framework in most cases except for sexual and emotional awareness has better condition from the without the framework group and have gained the higher score in questionnaire of TestWel than the control group in all cases. In addition, the group of without framework only showed a significant difference in subscales of emotional management that showed the mere providing information even can make minor change only but do not create a significant difference. Finally, encourage to compliance of counseling and training package with framework of the skilled helper model means to increase in life returns, convert the problems into opportunities, empowerment and personal independence and prevention of the return the problems to change of thought pattern and was provided different look to the healthy subject.

## 6 Suggestions for Future Research

suggestions is presented as follow order to perform a more complete and more comprehensive researches in the future and also development of more and broader training packages to improve wellness in various fields:

It is suggested the different tools and methods of data collection such as observation, interview and experts grading tools that reduce the bias responses to be used to measure wellness order to universalize the concept of wellness.

It is suggested in future studies the other age, population and education groups reagent sample to be chosen and studied order to increase the strength of generalizing the results and further identification of relationships between variables and its components in various groups.

It is suggested the longitudinal researches to be used and be identified and measured by different and valid criteria for predictive validity of the questionnaire for wellness.

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## THE EFFECT OF VIRTUAL SELLING AND BUYING OF VEHICLE ON THE ADOPTION OF E-COMMERCE SYSTEM BY CUSTOMERS

<sup>a</sup>MEHRDAD HASANZADEH, <sup>b</sup>HOSSEIN DAKHLI

<sup>a</sup> *Department of Business Management, Islamic Azad university of Tehran-Iran, Central Branch,*

<sup>b</sup> *First Author, Department of Business Management, Islamic Azad university of Tehran, Central Branch*

Email: <sup>a</sup>*Dr.merhasan@yahoo.com,*

<sup>b</sup>*Dakhlih@yahoo.com*

**Abstract.** The purpose of this study is to examine the impact of product perception, shopping experience, information provided or the level of perceived risk on the adoption of B2C e-commerce. To collect the data, a researcher-made questionnaire with a five-point Likert scale was used. To measure questionnaire's reliability, Cronbach's alpha was used which the value obtained was %925. Cochran method was used to obtain the sample size. The results show that attitudes toward e-commerce, subjective norms and perceived risk are the main factors that affect the decision to purchase from electronic retailers.

**Keywords:** online shopping, intention, perception, attitude

### 1 Introduction

The growth of the World Wide Web (www) and its acceptance among consumers has paved a way to the rise of B-to-C electronic commerce (EC) (Lei-Da Chen et al, 2004). According to Sawhney and Kaplan (2000) electronic commerce (e-commerce) is a means of business activities conducted using electronic data transmission over the internet and the world wide web. Hutt and Speh (2004) illustrated how transaction management aspect of electronic-commerce can also enable firms to reduce operating cost by enabling better coordination in the sales, production, and distribution process or better supply management and to consolidate operations and reduce overhead. Huang et al. (2001) considered firms are interested in e-commerce because, quite simply, it can help business and improve profits.

The Internet's capacity to access, organize and communicate information in a more efficient way has brought about new formulas for the relationship between consumers and firms. New economic agents and new business models have emerged too. In this way, the development of e-commerce offers great opportunities for both manufacturers and retailers, but it also presents important challenges for organizations, demanding an in-depth review of marketing strategies and consumer knowledge (Goldsmith and Bridges 2000, Jones and Vijayarathy 1998). Therefore, enterprises view e-commerce as the best way to form a bridge between suppliers, business partners, and customers (Timmers, 1999; Fellenstein and Wood, 2000). Internet gathers all competitors and consumers in one place. It brings new lane to promote, advertise products and services in market (Barry Silverstein, 2002). Online shoppers always want to seek information within few clicks and reach to the most relevant information according to their requirements such as competitive brands, best price offers, product specification and consumer word-of-mouth (Yuan Gao, 2005).

Online shopping basically based on individual thinking point of view and his personal perceptions. Online shopping makes its own character for its development (Na Wang 1, 2008, p. 4). While the traditional "brick-and-mortar" shopping venues are restrained by time and space, the Internet has decreased the effort and time consumers spend on shopping (Bhatnagar et al., 2000). Furthermore, the Internet makes an unlimited range of products and services accessible for consumers all around the world (Quelch and Klein, 1996). People can buy or sell virtually anything, at anytime, from anywhere, through online shopping (Ko et al., 2004).

Retailers all over the world are establishing virtual stores, which exist in the cyberspace and offer merchandise and services

through an electronic channel to their customers with a fraction of the overhead required in a bricks-and-mortar store (Hoffman et al., 1996; Yesil, 1997).

Beside our study that have focused on the commercial characteristics of the Internet as a sale system have adopted diverse theoretical approaches and have obtained contradictory results. Even though there are research endeavors to explain e-commerce system adoption and online consumer behavior (e.g., Gefen et al., 2003; Grazioli and Jarvenpaa, 2000; Pennington et al, 2004).

A business can reduce the cost of handling sales inquiries, providing price quotes, and determining product availability by using electronic commerce in its sales support and order taking processes.

Just as e-commerce increases sales opportunities for the seller, it increases purchasing opportunities for the buyer. Elberse (1996) outlined that, e-commerce provides buyers with a wider range of choices than traditional commerce, because buyers can consider many different products and services from a wider variety of sellers. This wide variety is available for consumers to evaluate 24 hours a day. Some buyers prefer a great deal of information in deciding on a purchase; others prefer less. Bloch and Catfolis (2001) explored the believe that the internet and the digital revolution more generally, will have wide-ranging impacts on marketing as well as on many other aspects of society and business.

### 2 Theoretical Background

The theory of planned behavior (TPB) (Ajzen, 1991) is an extension of the theory of reasoned action (TRA) (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). Both theories hypothesize that an individual's intention to perform the behavior in question is a determinant of that behavior. Intentions are "indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991) and perceived behavioral control (PBC) influences behavior indirectly through intentions, as well as directly when the person does not have complete control over that behavior and when the individual's perceptions of control are accurate (Madden et al., 1992). TPB includes perceived behavioral control over engaging in the behavior as a factor influencing intention. TPB has been used in many different studies in the information systems literature (cf. Mathieson, 1991; Taylor and Todd, 1995a, b; Harrison et al., 1997). TRA and TPB have also been the basis for several studies of Internet purchasing behavior (George, 2002; Jarvenpaa and Todd, 1997; Khalifa and Limayem, 2003; Limayem et al., 2000; Tan and Teo, 2000; Pavlou et al., 2002; Grandon et al., 2011, Su and Huang, 2011; Sun et al., 2014). In order to communicate with customers and facilitate commercial transactions, used websites, hence companies needs to know more about customers and their intentions and also orientation with internet especially e-commerce. Thereby evaluate and improve the effectiveness and usability of it. On the other hand changes and developments of purchase methods from traditional ways and physical presence to new electrical purchase methods causes companies more pay attention to online shopping and demands of customers, in order to attract more customers. The theory of planned behavior (TPB) (Ajzen, 1991) has been adopted as the framework for our study. So that we can apply a solid theoretical basis. According to available literature we intended to offer at first, study of a theoretical model for a bunch of effective variables in e-commerce strategies in Iran. Second, understanding of behavioral variables of customers. Third, check out the acceptance from technical prospective of virtual selling. Fourth, evaluation of car companies and agencies in online shopping and how they meet the intention of customers, and at the end study for technology oriented approach base on the development of innovative technologies by focus on e-commerce features.

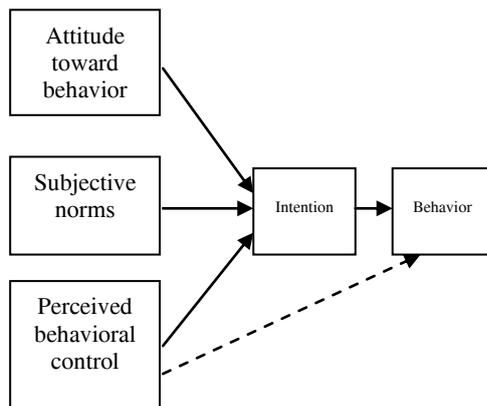


Fig1. Model 1 represent the TRA (full lines) Model 2 represent the standard TPB (full lines plus dotted line)

### 3 Literature review

#### 3.1 Consumer Attitude

Kardes (2002) said that attitude is a concept that has been explored by a lot of attitude research. Attitudes toward a behavior have been found to influence the behavior, including online information search and purchase behavior (Shim et al., 2001). According to (Ajzen and Fishbein, 1975; 216) an attitude represents a person's general feeling of favorableness or unfavorableness toward some stimulus object". The next statement "as a person forms beliefs about an object, he automatically and simultaneously acquires an attitude toward that object" (Ajzen and Fishbein, 1975) Heijden et al., 2003, stated that attitude has strong, positive and significant impact toward intention, this finding also support (Yulihastri et al., 2011) research stated that attitude has significant influence on intention. Although some recent studies have suggested that attitude may not be as important in predicting behavioural intentions (for example, Venkatesh et al., 2003) In the context of consumer website use and online shopping adoption, several researchers have indeed found positive and significant impacts of attitude on intention (Jeong and Lambert, 2001; Korzaan, 2003; van der Heijden, 2003; Shih, 2004; Lee et al., 2005; Pavlou and Fygenson, 2006). Further, favourable attitude is expected to ease online transactions and reduce barriers to the adoption of e-Commerce (Jarvenpaa et al., 1999; Pavlou and Chai, 2002). Lastly, attitude has been shown to correlate well with behavioral intention when adoption is voluntary (Davis et al., 1989) and among experienced users (Karahanna and Straub, 1999; Yu et al., 2005).

The most influential predictor of intention to search for information via the Internet was previous Internet purchase experience, a factor related to consumers' perceived risk. This finding supports other previous attitude-behavior researchers (e.g., Bentler and Speckart, 1979, 1981; Sutton and Hallett, 1989) who asserted that past behavior is a predictor of future behavior. Attitude towards online shopping has huge impact on intention to web purchasing (Limayem et al. 2000). There are some other definitions according to one of the other definition attitude towards online shopping is defined as customers positive or negative sensation connected to complete the buying behavior on internet (schlosser, 2003).

#### 3.2 Subjective norms

According to Fishbein and Ajzen (1975), Subjective norms refer to "perceived pressures on a person to perform a given behavior and the person's motivation to comply with those pressures." Thus, subjective norms reflect how the customer is affected by the perception of some significant referents (e.g., family, friends, and colleagues, among others) of his/her behavior (Schofield, 1975). Subjective norms or the approval of others, called refer-

ents, have been found to affect behavior. For example, referents have been found to influence shopping center patronage intentions (Evans et al., 1996), online apparel purchases (Shim and Drake, 1991). Numerous studies in psychology have theorized that subjective norms are an important determinant behavioral intention (e.g., Herrero Crespo and Del Bosque Rodríguez, 2010; Lin, 2007; Taylor and Todd, 1995; Yi et al., 2006). Subjective norms tend to be more influential during early stages of innovation implementation when users have limited direct experience from which to develop attitudes (Taylor and Todd, 1995).

As stated previously, the TRA identified subjective norms and attitude as determinants of behavioral intention (Davis et al., 1989), whereas the original TAM did not include subjective norms in its model. Subjective norm can be thought of as composed of two components: societal norm and social influence (Pavlou and Chai 2002). Societal norm refers to the process of adherence to the larger societal fashion, i.e., a large circle of influence. Collectivism, however, refers to the extent to which individuals are integrated into groups, forming their judgments based on group norms (Hofstede and Bond 1988). Social influence refers to the extent to which people accept a hierarchical system with an unequal power distribution (Pavlou and Chai 2002).

#### 3.3 Perceived behavioral control

Ajzen and Madden (1986) extended the TRA into the Theory of Planned Behavior (TPB) by adding a new construct "perceived behavioral control" as a determinant of both intention and behavior. Perceived behavioral control refers to consumers' perceptions of their ability to perform a given behavior. TPB allows the prediction of behaviors over which people do not have complete volitional control. Perceived behavioral control, or the ease of accessing the Internet, has been found to influence intentions to search and to purchase online (Shim et al., 2001). When customers repeat their behavior several times, they feel more and more in control and form favorable intentions about purchasing (Liao et al., 2007). Perceived behavioral control reflects perceptions of internal constraints (self-efficacy) as well as external constraints on behavior, like availability of resources. It has been found that the Planned Behavioral Control (PBC) directly affects online shopping behavior (George et al, 2004) and has a strong relationship with actual Internet purchasing (Khalifa and Limayem, 2003). When consumers perceive that control over navigation at a website is low, they limit time spent searching at a site (Richard, 2005), express less shopping enjoyment (Childers et al., 2001), and report more negative evaluations of the products (Richard and Chandra, 2005). Given these reactions, we would not expect that even a lenient return policy could overcome consumers' negative evaluations of a website with low perceived control. In contrast, when consumers experience high levels of control over their shopping experience, they express more positive attitudes toward the e-tailer. But high levels of control do not reduce consumer uncertainty about e-tailer quality. As a result, we posit that consumers will be receptive to the signal information contained in the return policy when perceived control over navigation is high (Padmanabhan and Rao, 1993).

#### 3.4 Perceived Product

Product knowledge is a perception towards definite products, together with previous experience of using the product Eze, Tan and Yeo (n.d); According to them it is the list of the information that is related to the product and helps the customers to check whether it fits to their needs or not. Prieto et al (2009) explain product knowledge as something which we collect with the passage of time by experiencing the product and to know their necessary features. It is the information which is filtered by the buyers mind, after making certain cost and benefit analysis this knowledge compels the consumer to interpret the conclusion which may or may not be purchasing behavior. Product perception, sometimes called product understanding (Dillon and Reif, 2004) or product value (Crisp et al, 1997), consists of price, product quality, and variety. Since the perceived product quality

is a pivotal reason to buy (Aaker, 1991), price is the cost paid by the customers, and variety gives the customers more alternatives to choose the products and hence motivate the customers.

The experience of searching and purchasing in particular web-sites can help consumers assess product quality based on fewer product cues. From the learning and habitual use perspectives (Murray and Haubl, 2007), by assessing particular cognitive cues using more experience-based information (rather than assessing all product attributes), consumers are more likely to reduce their cognitive loads and, thus, reduce the cognitive costs invested in online searches and purchases. Product quality has long been discussed in the literature from different points of view (Garvin, 1984; Harari, 1993). Thus, perceived product quality can be defined as the customer's perception or the judgment about the overall excellence or superiority of the products or service with respect to its intended purpose relative to alternatives (Aaker, 1991; PZB, 1988).

### 3.5 Online shopping experience

The shopping experience in the cyber world is quite different from conventional stores. Effort, life style compatibility, playfulness have been mentioned (Baty and Lee, 1995; Goldsmith, 2000; Hoffman and Novak, 1996); social interaction was added by Jarvenpaa and Todd (1996-97). Shopping experience, according to most studies, concerns the user-friendliness and aesthetics of online shopping websites. The experiences include the effort required to use a website, its interactivity, and the fun of shopping online. In line with the work by Klein (1998), Shim and Drake (1990), Liang and Huang (1998), Eastlick (1996), and Weber and Roehl (1999), Shim et al. (2001) found that previous experience with Internet shopping is a good predictor of online search behavior.

Some of the studies believe that web-shopping consumer's behavior will depend on experience quality in which the experience quality can be obtained only through prior purchase experience, and prior experiences will strongly affect future behavior. There are some studies that have mentioned to past online experience as one of the antecedents of online purchase intention (Laroche et al., 2005; Ranganathan and Sanjeev, 2007; Kwon and Noh, 2010; Shim et al., 2001; Weber and Roehl, 1999; Eastlick 1996; Li et al., 1999). Although a positive relationship between Internet usage and online shopping intention was detected in some studies (Bhatnagar et al., 2000; Citrin et al., 2000; Liao and Cheung 2001; Park 2002), the relationship was not found to be significant in some of the later studies (Cho 2004; Nysveen and Pedersen 2004).

Experience with online shopping is found to correlate positively with consumers' likelihood to shop online. The more experienced consumers are with online shopping and the more satisfied they are with past online transaction experiences, the higher their purchases amounts and the more likely they are to be repeated purchasers (Brown et al. 2003; Devaraj et al. 2002; Foucault and Scheufele 2002; Koivumi 2001; Moe and Pader 2004; Park and Jun 2003; Pires et al. 2004; Yang and Lester 2004) and the lower likelihood of them aborting an intended online transaction (Cho 2004). This is supported by the extended Technology Acceptance Model, which suggests that increased user experience has positive effect on users' attitudes toward technology and the mastering of that technology (Venkatesh and Morris 2000).

### 3.6 Access to information

Internet its helps to store data in an inexpensive way, collect information rapidly and cheaply, provide information interactively in accordance with consumer needs, and, in comparison with printed marketing materials, it offers a greater sensory experience and can serve as a medium for trade (Peterson et al., 1997). Leong et al., (1998) claimed that the most important advantage of the Internet was its ability to provide detailed information and to reach target consumers. Seo and Kim (1999)

state that consumers with online shopping experience highly value the inexpensiveness of Internet search costs of traditional shopping channels. Consumers are not only free to search for product information, but also free to compare information between competing manufacturers (Alba et al. 1997). Klein (1998) argues that information search facilities on the Internet are particularly useful for search goods due to the low perceived costs of providing and assessing objective data. Confirming this point, Liang and Huang (1998) indicate that consumers are likely to conduct transactions in a manner that minimizes transaction costs such as those related to searching for product information, receiving post-sales services, and so forth.

The view that the shopping process is composed of consumers' shopping strategies and goals could explain why information search intentions via the Internet might be an antecedent of intention to use the Internet for purchase. It is believed that consumers develop shopping strategies, that is, action plans, for performing complex shopping behaviors (Darden and Dorsch, 1990). In addition to product type, Klein's (1998) model predicts that two other broad variable categories will influence information-seeking behavior. Specifically, certain consumer characteristics (i.e., product knowledge, prior experience, attitude toward shopping, and social influence) may affect the degree of Internet search.

Today, virtual community have profoundly changed consumers' purchase decision-making process. For example, many people nowadays examine other consumers' reviews and experiences posted in VCs before purchasing new products. In this case, members engage in knowledge sharing to reduce their uncertainty prior to the consumption experience. (Lu et al., 2010). Empirical studies have shown that the intention to get information positively influences the purchasing behavior (Gefen 2002, Pavlou and Fyngenson 2006). According to the Theory of Planned Behavior, behavioral intention is the most influential predictor of behavior (Ajzen 1991). In much research on consumer behavior, researchers often use intention to represent the actual behavior (Lin 2006, Lu and Zhou 2007). Thus, we use the intention to get information and the purchase intention to represent get information and purchase behaviors, respectively.

Consumers are likely to get information from a vendor or website if they trust it and believe that it will provide credible information. Pavlou and Fyngenson (2006) found that the trust belief positively affects consumers' attitude toward getting information from a Web vendor.

Despite the steady growth in online commerce, however, there are few insights regarding how different sources of information affect consumers' purchase decisions. This lack of research is surprising considering similar decisions have been studied extensively in a brick and mortar context (Brucks 1985; Punj and Staelin 1983; Ratchford 2001). Marketing researchers, however, are now calling for more research on the role of different information sources for Internet purchases (e.g., Bucklin et al., 2002; Ratchford et al., 2003).

The online sources that we study include seeing the product online, online recommendations by a friend, recommendations by an online vendor, recommendations in an online editorial, and online ads. For several decades now, researchers have studied how consumers use multiple information sources to arrive at a purchase decision (e.g., Newman and Staelin, 1973). We focus on how consumers search in the online environment and how consumers process and evaluate the credibility of such information. So we look the use of information sources that offered by website. More recently, the growth of the Internet has increased interest in how consumers choose online and offline sources (Klein and Ford, 2003; Ratchford et al., 2003; Rohm and Swaminathan, 2004). Prior research has also investigated whether the use of different offline sources varies across product categories (e.g., Westbrook and Fornell, 1979; Beatty and Smith, 1987). We know of only a handful of studies that investigate the use of online and offline information sources and these are typi-

cally within one product category. For instance, Klein and Ford (2003) and Ratchford et al., (2003) focus only on automobile purchases.

### 3.7 Theory of Perceived risks

Shopping has long been regarded as a risky activity as shoppers may be uncertain of a purchase decision and the consequences of a poor decision (Bauer 1960). Perceived risk can be defined as consumer prediction about uncertainty potential negative result from online transaction (Kim et al., 2008). Forsythe and Shi, 2003 defined risk on online shopping as certain wish subjectively from purchase disadvantages that is considered in some online purchasing. In trying to understand the way consumer involved in consumer attitude through internet, it seems that risk is one of primary concern considered by consumer. The study of perceived risk has a long history in the marketing literature. Researchers generally agree that perceived risk is a combination of the perception of the likelihood that something will go wrong and the perception of the seriousness of the consequences if it does (Kaplan et al., 1974; Taylor, 1974; Bettman, 1973; Lopes, 1995). Perceived risk has been shown to negatively influence consumers' intention to shop online, both for products (Bhatnagar et al. 2000; Featherman and Pavlou 2003; Jarvenpaa et al. 1999; Joines et al. 2003; Kolsaker et al. 2004; Liang and Huang, 1998; Liao and Cheung 2001; Park et al., 2004; Pavlou 2003) and e-services (Ruyter et al. 2001). Such a negative correlation was found to influence both experienced and novice consumers (Liang and Huang, 1998), while others find no such linkage (e.g., Liao and Cheung, 2001; Miyazaki and Fernandez, 2001).

The effect of perceived risk may be subject to product characteristics. The risk is generally higher for high-involvement products that require the initiation of problem-solving behavior and have some degree of personal importance than for low-involvement products (Pires et al. 2004). Consumers may worry about the security of transmitting credit card information via the internet (Bhatnagar et al. 2000). It is an obstacle that people perceive lack of security and privacy on the internet in the adoption of electronic commerce (Leibermann and Stashevsky 2002). Furthermore, consumers perceive higher levels of risk when shopping online than when shopping in traditional channels (Bhatnagar and Ghose, 2004).

The Internet, just like any type of non-store shopping, makes it difficult to examine physical goods; consumers must rely upon somewhat limited information and pictures shown on the computer screen (Jarvenpaa and Tractinsky, 1999). Consumers generally associate a higher level of risk with non-store purchase rather than store purchase. Unlike offline consumers, online consumers are concerned with risks involved in buying on the Web such as credit card, fraud and not receiving the right products after ordering (Heijden et al., 2003). Moreover, there is bound to be much uncertainty regarding system security, reliability, standards, and some communication protocols (Turban et al., 1999). All these factors increase the perceived risk of online shopping so that more than half of Internet users still have not made an online purchase (Teichgraber, 2001).

Jarvenpaa and Todd (1996-97) classified the risk types as follows. (1) Economic or financial risk: This is the monetary losses due to poor purchase choice, inability to return goods, etc. In this study, economic risk refers to credit card embezzlement. (2) Social risk: This originally refers to the fact that shopping on the web will be considered as imprudent or socially unacceptable, but as online activity becomes popular, we refer it as the embarrassment of confronting people in purchasing private-oriented books. (3) Performance risk: This refers to situation where product/service fails to meet ones expectation in online book shopping, in this study since the book quality is rather fixed, thus we refer to safety of payment methods. (4) Personal risk: This refers to the harmful personal consequences to the consumer resulting from online shopping. However, any losses can be attributed to this type according to the definition; thus, we regard this type of

risk as transaction data leakage. (5) Privacy risk: This refers to the personal private information leakage when offered to the online vendors.

Research Model and Hypotheses (Expressing the relationship between studies variable):

First set of hypotheses:

Hypothesis 1a: Individual attitudes towards online shopping positively affects car purchasing intention.

Hypothesis 1b: Subjective norms towards online shopping positively affects car purchasing intention.

Hypothesis 1c: Perceived behavioral control towards online shopping positively affects car purchasing intention.

Following set of hypotheses:

Hypothesis 2a: Perceptions of products supplied by Automakers positively affects Attitude towards buying a car.

Hypothesis 2b: Shopping Experience achieved by online shopping positively affects Attitude towards buying a car.

Hypothesis 2c: Access to information supplied by the virtual store during the research and comparison processes positively affects Attitude towards buying a car.

Hypothesis 2d: Risk perception of online shopping negatively affects car purchasing intention.

Hypothesis 2e: Risk perception of online shopping negatively affects Attitude towards buying a car.

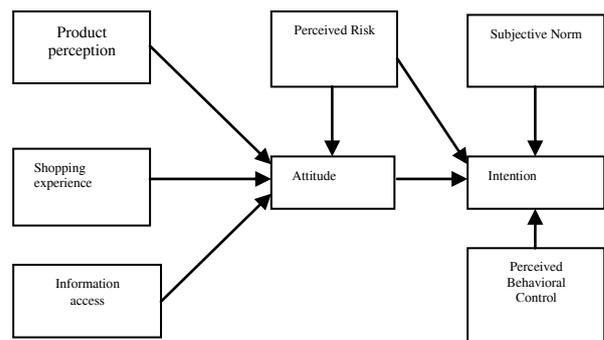


Fig 2. The research model.

## 4 Research Methodology

The present study is applied in term of objective, and also an analytical-survey in terms of methodology. The survey is based on polls who are involved in subject. Data collection has been achieved through the statistical sample and generalization of the results to the statistical population. The answers obtained from a sample that was selected carefully can be generalized to the population. Therefore, it doesn't require to be scrolled from the entire population. Statistical population consisted of internet customers at the present who intended to do online shopping to buy vehicle. To respond the questions or test the hypotheses in this survey, it's important to identify variables. Here, we considered three kinds of variables including independent variables, dependent variables and mediator variable. In this study, statistical population includes entire buyers who do online shopping from automaker companies and selling vehicle in Iran such as the following companies:

Iran Khodro, Saipa, Saipa Dizel, Pars Khodro, Pars Khodro, Kerman Motor, Bahman Khodro, Amico, Aria Dizel, Asan Motor, Mamout, Atlas Khodro, Maz Iran, Rhine, Avrin Khodro, Modiran Khodro, Modiran Pars.

To calculate statistical sample size according to big and mixed population, we can't make a comprehensive list of population from all members of population. Therefore, we use Cochran's formula whenever the statistical population size is unknown. According to the Cochran Z formula, the amount of standard probability is 96% and then P and Q are the ratio of success and ratio of failure at level of 0.5. Also, the accepted error by researcher  $d$  is equal to 0.010. According to this method, number of sample in this study is 155 objects.

In this study, according to this method, 155 subjects were selected as the sample. Study domain includes the entire buyers of online shopping from automaker companies and vehicle sellers in Iran.

## 5 Data collection

The viewpoint of the present research is in the scopes of e-commerce, e-marketing, decision making and vehicle and especially in the scope of the role of online shopping in customers' acceptance and buying vehicle. The data collection method was questionnaire which is one of the common study tools and a direct method to collect the data. Through the questionnaire, we intended to seek knowledge, attitude and customers beliefs. In addition to the questionnaire, in order to achieve precise information, we used other methods such as library method to obtain information.

A questionnaire consisting of 42 questions was used to collect the data and information. The questionnaire was prepared based on theoretical principles of the study and the hypotheses. The status of hypotheses has been realized by the questionnaire. The questionnaire was provided in the form of informative items and according to the spectrum of Likert quintet. It was tried to design the questionnaire as understandable as possible and asked from respondents in each of these factors in questionnaire to declare their option from very low until very much. The numerical values in order were considered 1 to 5. General scale and ratings of this spectrum are as follows:

General scale: very low, low, somewhat, much, very much

Ratings: 1, 2, 3, 4, 5.

### 5.1 The data analysis methods

In the present paper, the descriptive statistical techniques were used for data analysis such as creating frequency tables and designing charts for analyzing the statistical distribution in terms of age, sex and etc. the inferential statistics were also used for analyzing the research data through different analyses. First of all, in order to identify the exploratory factors, to confirm the factor analysis and studying the variable conditions such as reliability and validity, the one-sample test was used. In fact, the difference between the studied sample averages is tested by a given value. In the present research, the factor analysis is used in terms of the validity (divergent).

Moreover, in order to test the measuring model and to trust its correctness, the confirmatory factor analysis (divergent validity 5) was used. The questions of the present research are suggested that confirmed the latent variables by exploratory factor analysis then the correctness and fitting of the model are discussed by the confirmatory factor analysis (table 1).

The results of exploratory factor analysis obtained from SPSS and LISREL software.

In the present research, for the properness of the data for factor analysis KMO (Kaiser-Meyer-Olkin) was used. Furthermore, for assuring the data to be accurate (I.e. to be assured that the correlation matrix is not equal to 0), the Bartlett test was used. All derived factors in the present research were not favored of the researcher. Therefore, the goal of factor analysis is to explain the phenomena with less prior variables. To do this, mathematic criterion such as Kaiser or Scary Kettle are used for maintaining the factor.

### 5.2 The results of the findings

The electric commerce development in different areas especially in industry is the result of electric commerce capabilities which is greatly accepted in today's business. Human being tries to accelerate the development process of the electric commerce in different aspects of the social system. It kept away from traditional pattern and tries to create new pattern with the requirements of today's technology. In this regard, most of service providers paid attention to new technology of providing service to customers as a way for controlling costs, absorbing new customers and realizing the customer's expectations. They also added the use of technology in their program as a guidance (Joseph and Stone, 2003, p. 190).

Understanding the factors lead to accepting information and create the situation under which the e-commerce is accepted is one of the most important studies in domain of e-commerce. In other words, why people turn to e-commerce and how it's accepted are of the most important researches in e-commerce. In other words, why people turn to e-commerce specially purchasing from the internet or do not accept it are of the most issues in e-commerce discussions. Therefore, the researcher studied the importance of this subject.

Based on the findings of the research, the first hypothesis was accepted with 0.05 different values. It means that the individual perspective to internet purchase positively affect the car purchase tendency.

The second hypothesis was confirmed because of the less difference level which is discussed. It means that the mental norms regarding online purchase positively affect the tendency of buying car.

The third hypothesis (with 0.02 difference level) revealed that controlling the perceived behavior in terms of online purchase positively affect the tendencies of buying car. The fourth hypothesis was accepted with the difference level of 0.08. This shows that the understanding of the delivered products by car producers positively affect the attitude toward buying car.

The fifth hypothesis indicates that the experience gained by purchase in online condition positively affects the attitude toward buying car. It was confirmed based on the difference value of 0.08 (table 2).

The sixth hypothesis was confirmed based on the difference level of 0.05. It means that accessing the delivered information by online store positively affect the attitude toward buying car.

According to different level and result, the 7th hypothesis was confirmed. The understanding of online purchase risk negatively affects the tendency of purchasing car. Based on the 0.08 difference level, the result of eighth hypothesis was confirmed. Understanding online sale negatively affects the attitude toward purchasing car.

In order to confirm or reject the hypotheses, the structural equation model was used especially path analysis. The following structural model shows the relationship between tendencies of purchasing car and online sale. The structural model in standard estimation status showed that there's a positive (0.66) and significant (8.50) effect in online purchasing and selling (Figures 1 and 2).

Table 1

sex	quantity	percentage	age	quantity	percentage	education	quantity	Percentage
male	23	15%	20-28	29	18%	Under diploma	28	18%
female	124	80%	29-30	46	30%	Diploma	49	31%
uncertain	8	5%	36-45	49	31%	BS	42	27%
			46 to up	32	21%	MA	20	13%
			Without answer	-----	-----	Phd	11	7%
						Without answer	5	4%
Total	155	100%	Total	155	100%	Total	155	100%

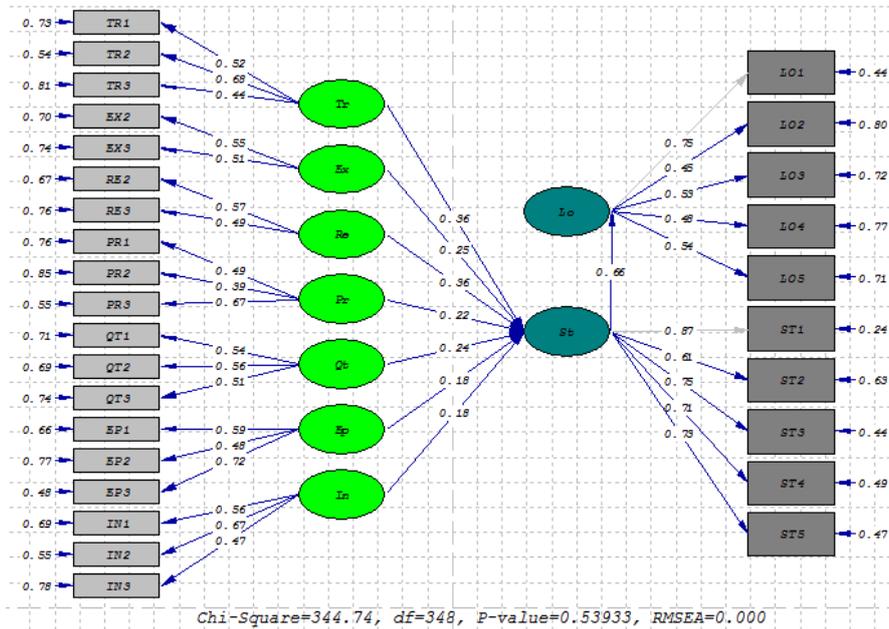


Figure 1: the structural model in standard estimation status

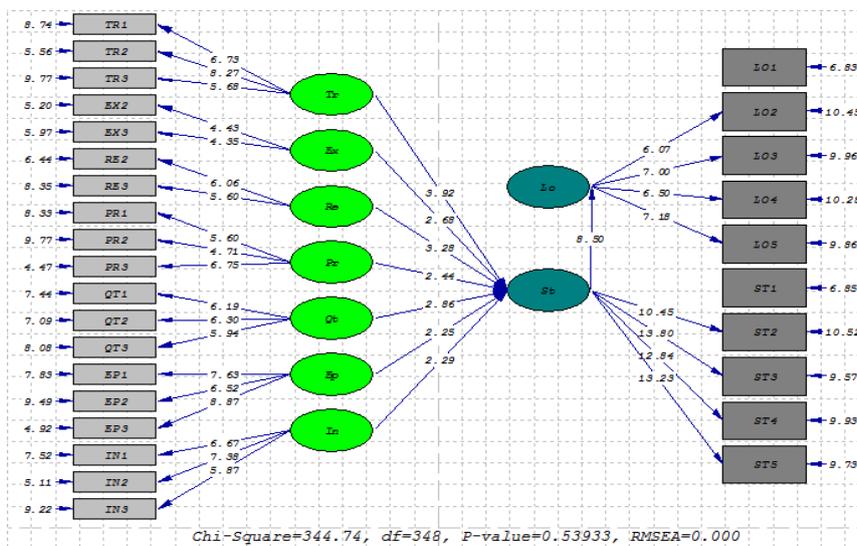


Figure 2 : structural model in significant coefficient status

Table 2: the results of fitting model

Results	Obtained numbers	Standard value	Indicators
Suitable fitting	0.897	$df < 3 \chi^2$	The ratio of K2 to degree of freedom Chi-square / df
Suitable fitting	0.000	$0.08 < < 0.05$	RMSEA
Suitable fitting	0.95	Higher than 0.9	GFI
Suitable fitting	0.92	Higher than 0.9	AGFI
Suitable fitting	0.97	Higher than 0.9	CFI
Suitable fitting	0.95	Higher than 0.9	NFI
Suitable fitting	0.96	Higher than 0.9	NNFI

## 6 Conclusion

This paper studied the relationship between online sale and acceptance and purchase of car by customers. The behavior of customers in relation to online sale was studied. Based on the studies all hypotheses were confirmed. The following suggestions are introduced to the same society:

The website design should pay attention to the ease of practicality and it should also use facilities such as flash technology for the first page by focusing on products and services the company provides. Moreover, a powerful web search should be used for the user. The secure and easy pay should be provided for customers to assure the customers. It should introduce various payments such as bank account, credit card and etc. Facilities such as the designed product orders through internet should be introduced to users. Before purchasing product or service, the order process should display the good purchase to user with high resolution in a way that customers be confident in delivering method. Facilities should receive the customer addresses through websites and they should send them an email informing about the product. Since after sale services have an important role in assuring the customer, it's suggested that the company agents and centers be introduced clearly and the contact info be contained in the website. For future studies, the researchers can analyze the factors, absorb the customer's satisfaction and prioritize them. They also study and compare online sale in big and small companies, the indirect barriers of ecommerce in supply chain and the effect of ecommerce in developing the supply chain and increasing the customer's satisfaction. Studying the relationship between internet marketing and social welfare and internet democracy increase are suggested for further researches.

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## PROFITABILITY AND MARKET POWER ON DIVIDEND POLICY OF LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

<sup>a</sup>MOHAMAD MEHDI REZAZADEH CHARI , <sup>b</sup>SEYED ALI NABAVI CHASHMI

<sup>a</sup>Islamic azad university Ayatollah Amoli, Department of Financial Management, Amol, Iran

<sup>b</sup> Associate Professor of Babol Islamic azad university, Department of Financial Management, Babol, Iran

Email: <sup>a</sup>mohammad.mehdi.rech21@gmail.com,

<sup>b</sup>ali.navabi567@yahoo.com

**Abstract:** The aim of this study is to investigate the role of market power and profitability on dividend policy of listed companies in Tehran Stock Exchange. The research methodology is descriptive-documentary and using a practical approach. Sample's data were extracted from selected Stock Exchange companies between the years of 2010-2014 and were analyzed by using the Eviews 6 software. The results showed that among the eight profitability variables, accumulated profits to total assets ratio, asset growth rate, firm size, Market capitalization to book value ratio, return on assets and cash flow rate of return on assets, the Herfindahl-Hirschman index of all variables except variable of firm size, have a direct and significant effect on dividend payment.

**Keywords:** market power, profitability, dividend policy, Tehran Stock Exchange

### 1 Introduction

Dividend policy is one of the important areas of finance literature. Many researchers have studied the reason that companies pay a large part of their revenues as dividends. Dividend payments directly benefit the shareholders, and affect the company's ability to accumulate profits in order to take advantage of growth opportunities. Any investor considering ones' tastes, buys a company's stock if finds its dividend policy desirable. The amount of dividends proposed by the board usually contains information about management's expectations about future profitability of the company. The present study sought to examine the relationship between product market competition and incentives to distort the profits reported by their managers. A large literature in economics and accounting theoretical guidelines in this area have been provided that how competition can lead to the reduction of agency problems. In a number of studies, the structure of company's products market have been proposed as an effective factor that affect investment activities, financing, distribution of cash and corporate governance Denis et al., (1994), presented and analyzed the existing literature on the effects of product market competition on the accounting methods in two opposite perspectives. Their first view suggests that managers' incentives to manipulate earnings increased competition because when earnings show the existence of a competitive disadvantage (or advantage), competition will be punished (or rewarded) in stock market. The

second view suggests that if shareholders or their stock analysts have access to the real market, more difficult competition may be used to justify the positive and negative accruals inflated reported profits. When the shareholders or analysts have the ability to view the company's output, the company's managers who are pretending that they are efficient, not only need to manipulate accounting earnings, but if their activity is really effective, they must be used in real. In this context, misleading shareholders or analyst by higher output in competitive markets is costly. Therefore, managers must report lower earnings manipulation. In this regard, many previous studies have provided evidence. When the flow of information about the industry is low, product market competition has positive effects on earnings management. However, when the flow of information about the industry is high, the competition has negative effects on earnings management companies. Denis et al., (1994), also states that increased competition increases the risk of liquidation of the company. This in turn leads managers to turn to the capital increase and debt reduction. In total, such short-sightedness of the company due to competitive pressures lead managers to manipulate earnings to influence the market thought to attract funds through their short-term performance, survival of the company and other reasons.

### 1.1 Hypotheses

1. Profitability has a significant impact on dividends of listed companies in Tehran Stock Exchange.
2. The ratio of retained earnings over total assets (RE / TA) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.
3. Asset growth rate (AGR) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.
4. Company size (SIZE) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.
5. Market-to-book ratio: (M / B) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.
6. Return on Assets (ROA) has a significant impact on dividends paid by companies listed on Tehran Stock.
7. Cash-flow return on assets (CFROA) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.
8. Herfindahl-Hirschman index (HHI) has a significant impact on dividends paid by companies listed on Tehran Stock Exchange.(figure1)

### 1.2. Conceptual Model

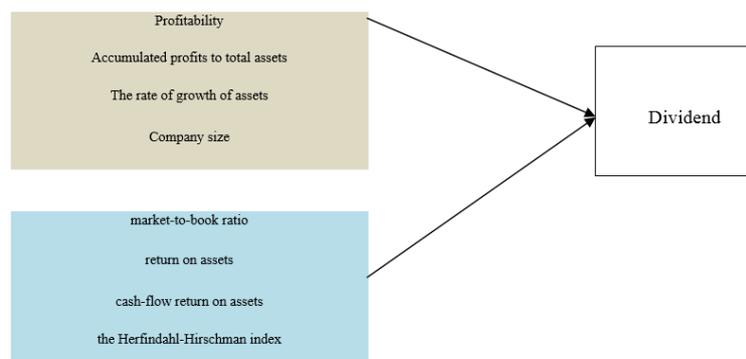


Fig 1. Conceptual Model

## 2. Market power

Market power in one country can be defined as a factor in price changes to higher levels of full competition. If a group of parties in a market compared with other groups have higher bargaining power, market power is created.

Market power may be in the market order (monopsony) or product sale market (monopoly) to be created. Market power in the sale makes some part of the consumer surplus in the form of higher prices to be absorbed by the supplier as in exported product, it is in the form of earning higher prices from foreign consumers.

## 3. Parameters in market structure

Important aspect of market structure is focus. In other words, we by using the concept of focus we can study market structure and size of competition and monopoly in the markets or the economy. Focus shows how the market between different companies is divided, and is to measure the relative size of firms. If the market is more unfair in distribution, the focus will be higher. And in the same conditions as the number of firm increases, the degree of concentration will be less. In fact, the size of the focus tends to correlate closely with the number of firms and unequal distribution of firms in the market. Thus, the focus can be written as follows:

$$\begin{aligned} C &= f(n, i) \\ C_n &< 0 \\ C_i &> 0 \end{aligned} \quad (1)$$

In this regard, the letter C indicates the size of concentration, n represents the number of firms and i indicates inequality in the distribution of shares that can be measured with indicators such as variance and standard deviation of the distribution of firms' share of the market size. (Denis et al., 2008).

The focus must be distinguished between micro and macro levels. When the focus is on the economic level discussions, it means the share of a few big firms and companies from any or all of the economic sectors. To measure the concentration of macro usually 50 or 100 firms larger than the share of the total value produced in the economy is calculated. And firm concentration ratio is 50 or 100. In calculating the macro focus, the firms in terms of size (sales, net production and value added) are larger than other firms. These companies can be of different industries. While in the calculation of market concentration at the level of individual industries and companies, only firms are considered, in terms of activities and produced products (and production methods) they are similar or are in a particular industry according to standard industry classifications.

The number of firms in a market and market distribution, are two important aspects of market structure, which play a crucial role in the formation of market concentration. At the level of individual markets, market concentration is only in terms of the market distribution between firms producing a homogeneous product. In such case, we face inequality measure focus. However, if the number of firms on both side of the market and market distribution be noted, focus absolute criteria is created.

To calculate the concentration, there are different indicators, each of which has advantages and disadvantages. But a good concentration index criteria must be: 1. easily understood, 2. independent of market size; 3. of the size between zero and one, and be dimensionless; 4. Theoretical-based. To understand the criteria the concentration curve is used. Concentration curve, shows the relationship between cumulative production and cumulative relative frequency or firm.

In applied economics, there are several indices to measure market structure of which can be inverted to determine the number of firms, price discrimination, Lerner indices, interest rates, focus ratio, the Herfindahl index, Pricing - Cost Margin, Hannah index, Entropy Index. , the Gini coefficient, variance and the logarithm of the firm's size (Denis et al., 2008).

### A- Inverse number of firms

This index is the simplest indicator of focus. One of the weaknesses of these indicators, is giving equal importance to all firms. (Denis et al., 2008).

### B- The concentration ratios (CRi) (share of n top firms)

The concentration ratio indicates the size of the production (or sell) i largest enterprise to the size of the production (or sales) market. More specifically, concentration ratio indicates a firm with CR1. And shows that the largest firms on the market, the size of the share of production (or sales). And n firm concentration ratio shows the CRn. N represents the ratio of the size of the largest firms in the market to the size of the production (or sales) market. Since in a competitive market, the market size is distributed among many firms and consequently size of one firm concentration ratio (CR1), four firms (CR4), eight firms (CR8) and even 16 firms (CR16) will be small. In a complete monopoly market, a firm constitute the total market size. And one firm concentration ratio is close to one.

The concentration ratio, market structure (competition and monopoly) is characterized to some extent, but does not provide comprehensive information about other firms in the market. The use of this index is high, it also has some weaknesses. The main limitation of this indicator is based on a point on the curve focus. Therefore, in calculating this index, much information is lost. The range of variation in these variables between zero and one hundred percent. One of the weaknesses of the index, is voluntary n. This index focuses only on information of first few firms. In other words, if a change is needed in the industry, so it does not affect large firms, does not change the size of the index. The concentration ratio largely depends on market definition. The broad market, decreases the concentration, whereas small market has usually adverse effect on concentration ratio.

### C- The Herfindahl index

Herfindahl Index (HHI) is used to fix some defects of concentration ratio and negative indicators of firms suggested by Herfindahl, Herfindahl index, determines the distribution of market size and market structure which improves the ratio between existing firms focus. HI, is used to consider all the points of the focus curve, and the information is used around the curve, in fact, in this indicator, unlike the concentration index of all enterprise information is used to calculate the degree of concentration. Herfindahl index (HI) is calculated with the following formula:

$$HI = \sum_{i=1}^n S_i^2 \quad (2)$$

$$HI = \sum_{i=1}^n \left(\frac{X_i}{X}\right)^2 \quad (3)$$

In this formula, n is the number of firms in the market and S is firms' share of the total market size. In the above indicators, the number of firms (x) and the size of their relative shares is (xi) as considered in the calculation. If there are a large number of firms with the same relative size in the market, Herfindahl index is very small and is close to zero. And if a few firms and measures inequality exist in the market, this index will be close to one.

Easterbrook, (1984), extended Herfindahl index with further studies. He gathered curve slopes concentration, and achieved the Herfindahl index. If the total number of firms in industry A and sales of the ni firms in the industry be ai, the industry concentration curve slope is calculated as follows:

$$\text{Slope of the concentration curve} = \frac{\frac{a_i}{ni}}{\frac{A}{A \cdot ni}} = \frac{a_i}{A}$$

The total weight of slope (W<sub>TS</sub>) with a market share of each firm can be written as follows:

$$W_{TS} = \sum_{i=1}^N \left( \frac{a_i}{A} \cdot \frac{1}{ni} \cdot \frac{a_i}{A} \right) \tag{4}$$

It is clear that if 1 = ni, the Herfindahl index will be as follows:

$$H = \sum_{i=1}^N \left( \frac{a_i^2}{A^2} \right) = \sum_{i=1}^N \left( \frac{a_i}{A} \right)^2 = \sum_{i=1}^N s_i^2 \tag{5}$$

In this respect,  $\frac{a_i}{A}$  is the market share of each firm (Si). Herfindahl concentration index can be written using the inequality index called the coefficient of variation. The average size of firms in the industry is:

$$\mu = \frac{1}{N} \sum_{i=1}^N a_i \tag{6}$$

Therefore, firm's size variance will be equal to:

$$\sigma^2 = \frac{1}{N} \sum_{i=1}^N a_i^2 - \mu^2 \tag{7}$$

And so the square can be written as a coefficient of variation:

$$C^2 = \frac{\sigma^2}{\mu^2} = \frac{\frac{1}{N} \sum a_i^2 - \mu^2}{\mu^2} \tag{8}$$

With the above fraction separation and means insertion, the following equation is obtained:

$$H = \frac{C^2 + 1}{N} \tag{9}$$

After the Herfindahl index, the inequality depends in the distribution of firms in the market (C) and the number of firms in the market (N). if Square of the coefficient of variation be zero and N-1 N, the Herfindahl index will be equal to one, indicating the complete monopoly of the market. In contrast, if there is a large number and size of small firms, this index will be zero indicating perfect competition market. In the Herfindahl index (as opposed to focusing index), to the market share of each firm, be given its weight equal to the square. Thus, it is clear that larger firms are more important in measuring the degree of market concentration and the Herfindahl index.

Real markets according to the Herfindahl index of concentration and monopoly to competition can be divided into 7 categories (Table 1, 2). For example, if a market concentration index is 100 percent and a firm have all market shares, it is Monopoly. Monopoly a market where a firm will have between 50 to 100 percent of market shares is called "dominant firm" market, if the cumulative share of the top four firms is a total of 100-60 percent, it is called Tight Oligopoly. And if the market share of the top four firms is less than 40 percent it is called Loose Oligopoly. In closed multilateral monopoly market, as a limited number of firms are focused in the market. Collusion and cooperation and non-competitive behavior is likely.

According to the Herfindahl index, the market index of less than 1,000 (0.1 of 1) is competitive market. And if the market has more than 1,800 HI index (0.18 of 1), it is considered as non-competitive market.

Table 1. Spectrum of market structure and its characteristics in terms of number and size of firms

Market features	(HI)	(CR <sub>i</sub> )	Description
More than 50 rival firm, are owned without any market share	0HI→	CR <sub>1</sub> →0	Perfect competition
High effective number of competing firms, no more than 10% of the market are monopolized.	15 < (1/HI) ≤ 30	CR <sub>1</sub> < 10	Monopolistic Competition
4 firms, with a maximum of 40% of the market monopoly.	10 < (1/HI) ≤ 15	CR <sub>4</sub> < 40	open Oligopoly
4 firm, at least 40% and maximum 60% of the market have a monopoly.	6 < (1/HI) ≤ 10	40 ≤ CR <sub>4</sub> ≤ 60	Oligopoly
4 firm, at least 60% of their market monopoly.	3 < (1/HI) ≤ 6	CR <sub>4</sub> > 60	Closed monopoly
A firm has a monopoly over 50 percent of the market.	1 < (1/HI) ≤ 3	CR <sub>1</sub> ≥ 50	Dominant firm
A firm's overall market monopoly.	1HI→	CR <sub>1</sub> →100	Complete monopoly

It should be noted that presented criteria are only applicable in firms and active firms in the market; as in this paper, some of these indices considered the entire country as a firm in the process of production market structure and world trade calculations. The concentration ratio and Herfindahl index compared to other proposed measures are used in the calculation of the global market and accessing their data is easier. There are also other indicators such as the Lerner Index, interest rates and price discrimination specific firms active in the market, which focus primarily on variable of market price.

Despite the development of market analysis methods and presentation of new indicators, still Herfindahl and concentration indices are widely used. These indicators, maintained their effectiveness, as some of the studies that have used the Herfindahl index and concentration ratio are available.

#### 4. Dividend Policy

Dividend policy is one of the most important issues in financial literature. The dividend represents a major cash payments and one of the most important choices and decisions that managers encounter. The manager must decide how much of the profit should be split, and how much investment in the company should be done again in the form of retained earnings. Despite the fact that dividend payments directly benefit the shareholders, the company's ability to accumulate profits in order to take advantage of growth opportunities is influenced (Grullon et al., 2002). In addition, the policy on the stock market has information content. And changing it contains information for shareholders.

Dividend policy is an important aspect of financial management because managers decide on the basis of the results of operations framework that how much of the company's profit should be distributed among shareholders and how much should be kept in the firm. While investors are interested to receive their annual profit from investment, managers consider the cheapest and the most important source for funding for growth, development and financial needs to not to share their profits, therefore there is a conflict between these two groups that needs to find an optimal solution.

There are some factors that affect the company's dividend policy

- Current cash flows are prospects of future cash flows, so with the increase in current operating cash flow, the director predicts higher future operating cash flows and dividend increases;
- Companies with growth opportunities, need financing, so they distribute little profit;
- Information asymmetry reduces the tendency of managers for external financing. So, in such situation managers reduce the dividend to increase financial resources;
- Debts of the company is an effective factor in dividend policy. To a certain extent companies can satisfy needed finance through borrowings, more borrowing will lead to an increase in debt and financial risk. So between debt repayment and dividend declaration, debt repayment is usually preferred;
- Dividend is a function of the company's profitability. In other words, profitable companies have more ability to pay more dividends;
- Company size also affect dividend policy. Small firms compared with large firms, have more difficulties in their funding. The dividend has positive relationship with company's size. The alternative view is that larger companies have more debt. Because creditors to larger firms have more confidence, so less profit will be divided;
- Dividend is a function of the previous year dividend;
- Corporate Governance is means of a balance between shareholders and management that reduces the agency problems and reduces the possibility that managers take the less than optimal dividend policy. (Easterbrook, 1984)

Dividend policy is part of the company's policy that specifies the company's profit. In general, the relationship between dividends and earnings per share reflects the company's dividend policy. Dividend policy is the most important issues in financing literature. Many researchers, have provided theoretical and empirical evidence concerning the dividend policy measures. However, the issue of dividend policy remains unresolved and specific guidelines regarding optimal dividend policy has not occurred. Stock companies usually conduct specific policy decisions. In formulating this policy several factors such as policies in similar companies, dividend policy, the legal limits and stable profitability are used and considered. Despite multiple policies, companies often use policies such as fixed amount dividends, a fixed percentage of profits, dividends margin and dividend surplus

#### 4.1. Factors Affecting Dividend Policy

Understanding the factors influencing dividend policy, in addition to protecting the interests of investors leads to the company's growth, profitability and satisfaction, and ultimately enhance the possibility of the stakeholders of company policies. Based on explanations and theories that were expressed factors affecting the company's dividend policy can be identified. The main aim is to investigate the factors affecting the dividend policy and the possibility of payment of dividends of listed companies on the Stock Exchange in order to identify a set of variables together, and explain dividend policy and dividends payments in stock companies.

#### 4.2. Profitable investment opportunities

One of the factors determining dividend policy is profitable investment opportunities. Based on studies conducted by Grullon et al., (2002), many companies follow the theory of surplus dividend. They decide to pay dividends when they expect to have surplus funds investments. The company first determines needed funds from retained earnings for its long-term projects, then it will distribute the excess to shareholders. It is therefore profitable investment opportunities on dividend policy can affect each institution. Companies that have more growth opportunities for profitable investment in the future growth and positioning distribute a smaller percentage of their profits to the shareholders.

#### 4.3. Debt ratio (leverage)

The ratio of corporate debt plays a key role in explaining dividend policy. (Howe et al., 1992), suggest that companies with lower debt in their capital structure, have a greater ability to distribute dividends. According to agency theory, companies with lower debt ratio have greater ability to distribute dividends to their shareholders, while, in theory, signaling the opposite is true. The company with ratio of debt; to finance the debt in order to pay interest and principal at maturity, it may retain a greater percentage of the profits in the company or based on debt contracts it is required not to distribute a percentage of profits.

On the other hand, increasing leverage (debt-to-equity ratio) increases financial risk in order to reduce this risk, companies are forced to reduce the percentage distribution of profits.

#### 4.4. Institutional Ownership

Institutional ownership is stock percentage of total capital shares held by state companies and public. These companies include insurance companies, financial institutions, banks, public companies and other parts of the state. This variable is also used with the same definition in researches of (Howe et al., 1992). There are two conflicting views on the relationship between institutional ownership and dividend policy:

Inverse correlation (negative): (Howe et al., 1992), believed that in existence of a conflict of interest, external monitor or external activity is an important control element. Institutional shareholders are a group of foreign observers. If large institutional investors act as representatives of the regulatory act and dividends be paid to reduce agency costs, based on the theory of representing relationship between dividend policy and institutional ownership should be substitute. In this regard, a negative correlation between the percentage of stock owned by institutional owners and dividend policy is necessary. (Howe et al., 1992), states that according to message theory, managers indicate their future benefits with higher awareness and more information. It can be argued that dividend and institutional investors may not be considered as an alternative means of messaging. The presence of large shareholders may reduce the need to use dividends as the message of proper performance because same shareholders can act as a credible message. Institutional owners may transmit to the market that agency costs is decreased due to monitor activity of this shareholders group.

Asset structure is another factor of assets structure. (Howe et al., 1992), showed in their study that companies with higher tangible assets have greater ability to exercise their dividend policy.

#### 4.5. Growth Opportunities

(Howe et al., 1992), argued that higher growth opportunities need further financing and therefore have a higher chance to maintain profits. Also, Grullon et al., (2002) showed that companies with higher growth opportunities have less dividend payout ratio, this negative relationship supported dividend policy of stock by representation theory of dividend policy. As ratio of market value to book value of a company be more, distribution of profits is lower. According to the theory of "investment opportunities" as company's investment opportunities be more, its market capitalization compared to its book value is more on average, because unlike balance sheet, stock prices reflect the company's intangible assets such as the company's growth opportunities ahead of them (Easterbrook, 1984).

#### 4.6. Company size

The effective factors on their dividend policy and dividend payments is size of the company. (Howe et al., 1992), found that corporates have greater access to capital markets and have more ability to pay dividends to shareholders of the smaller companies. With regard to the issue of "political costs", size of the company can be considered a reflection of the political effects that cannot be raised for small companies. Company size is a factor that affects the efficiency of the company. Company size can be replaced with risks that cannot be justified by beta. As company is smaller, there will be less liquidity of its shares. Therefore, the expected return on investment increases. According to Ritter (Howe et al., (1992), small companies because of more uncertainty about the future of their intrinsic value have a higher risk compared with large companies and investors are more vulnerable to speculative purposes. Therefore, the pricing of the shares of small companies is higher than actually expected.

#### 4.7. Dividend payout policy

Due to factors affecting the dividend policy of which are explained, the behavior is usually of profit-sharing institutions are placed under one of the four distinct policies.

##### 1. The payment of a fixed percentage of the net profits

In practice, very few institutions follow the policy and its reason is clear. The net profit figure is not predictable in many institutions because profits fluctuate with changes in economic conditions and conditions within the institution.

This policy causes major fluctuations in the dividend. And so shareholders rarely able to predict certain level of dividend.

##### 2. Regular Dividend

This type of policy is the most common stock dividend policy. Institutions will have to dividend at a level that can sustain it in the years thereafter. And only this level will increase in the future if they ensure they are able to pay the new level and profit sharing.

##### 3. Multiple increases

Based on this policy, rather than expecting an increase in profits in order to ensure a higher level far than the dividend, it is better to continually attempting to increase the dividend to a fixed rate. Naturally, such a policy also indicates that the Institute has been successful in communicating with shareholders about the dividend.

##### 4. Extra dividends payment

This policy will apply to institutions that divide the profits into two parts. A portion of the dividend as smoothly and the rest would be done as an additional benefit.

#### 4.8. Asset growth rate

The study of changes in fixed assets which companies are the main sources of future growth and development is very important. The main methods for the development of a company's activities by increasing a company's fixed assets can be acquired by another company, the increase in capital (equity) and the use of credit and debit cited. But the important point is that with the development of fixed assets, the company's returns decreases over time. While the decline in fixed assets of the company makes returns increase over time. Reduction of the company's assets and consequently the volume of investment in fixed assets can be used to redeem the shares, repayment of debt and payment of dividends to shareholders (Easterbrook, 1984).

#### 4.9. Market value to book value

The ratio of price to book value or share price divided by book value per share gives a new benchmark. Which can be many times the book value of its shares will be traded. If the status of the economy in exchange for various political crises and so is undesirable and the value of the shares is declined, companies' shares will be equal to the book value. In this case, smart people buy stock. Therefore, in many cases, it could be considered as the benchmark for investment.

The ratio of price to book value, which is one of the financial ratios is used to measure the market price. This type of measure to measure the value created for shareholders is also considered.

This ratio which is dependent on the market price of the stock is obtained by dividing market share price to the book value.

The ratio of market value to book value is a measure of investment opportunities. According to this theory, companies release shares when the ratio of market value to book value of the shares is high. This is because managers believe that shares in market is in fact determined more than reality.

#### 4.10. Return on assets

Return on assets is one of the financial ratios, obtained by dividing net income plus interest expense to total assets. ROA is concerned with production and sales skills and is not affected by corporate financial structure. Because of in calculating profit

with the rate of return on assets, earnings faults can be seen here, too. Given that the net book value of assets is shown on the balance sheet, therefore, the real value of assets may be lower or higher than their book values. Therefore, low ROA does not mean that assets must be utilized elsewhere. The high ROA does not mean that the company had to purchase the assets and business.

#### 4.11. Free Cash Flow

Jensen defines free cash as the operating profit after taxes plus non-cash expenses after deduction of investment (increase in variation) in working capital, property, plant, equipment and other assets (Denis et al., 1994).

Free cash flow allows management in the absence of proper corporate governance structure to act to manipulate earnings. Denis et al., (2008), argues that manipulate earnings in companies with high free cash flow is higher. Research also shows that companies that have more free cash flow with greater representation are facing the problem of cost. Especially in firms with low investment opportunities, there is a low growth.

Given the high expectations, executives of companies where cash flows are high and have low growth, maintain a higher level of excess cash to operate inefficient investments. To hide the effects of such practices, they attempt to manage earnings. Also, given that many real earnings management through non-transparent activities of earnings management is through accruals. And manipulation of accruals are more likely to be identified by auditors and inspectors. This increases the incentive to manipulate the actual activities.

### 5. Research Methodology

The research methodology in terms of classification is based on objective and applied research. The aim of applied research is development of practical knowledge in a particular field. The research in terms of methodology and the nature used correlation approach.

The study population involves companies in Tehran Stock Exchange during the years of 2010-2014 as a total of 475 manufacturing companies.

To select sample of the FA sampling (screening) is used. And companies studied in order to test hypotheses, have been selected so that all the following conditions must be met:

In terms of comparability, the fiscal period should be ended in March. This limitation is due to having same time periods in creating variables in the calculation, so that conditions and seasonal factors do not affect choosing variables and factors.

Companies that are listed in the Tehran Stock Exchange prior to 2014.

Companies in which the desired data is available.

During the study, companies should not change their financial years.

Companies should not be other than banks and financial institutions (investment companies, financial intermediaries, holding companies, banks and leasing).

According to the above conditions 75 companies have been chosen and continued to be analyzed.

### 5.1. Variables

In order to assess market power and dividend policies, the regression model is used:

$$\text{Div Pay} = \alpha_0 + \beta_1 \text{profitability} + \beta_2 \text{RE/TA} + \beta_3 \text{AGR} + \beta_4 \text{SIZE} + \beta_5 \text{M/B} + \beta_6 \text{ROA} + \beta_7 \text{CFROA} + \beta_8 \text{HHI} + \epsilon_t$$

Profitability:

Net sales revenue minus the cost of goods sold and operating costs associated with the ongoing operations of the entity.

Size:

Different criteria for measuring variable of "company size" exists which include: total assets, sales and number of employees. In this study, the logarithm of total assets to measure the variable of "company size" used (Denis et al., 1994).

AGR: asset growth rate

Growth of assets according to total assets growth.

ROA: Return on Assets

Return on assets is defined as operating income divided by total assets.

Div Pay: Dividends paid

Dividing the dividend payment of dividends on the net profit.

RE / TA: total assets / retained earnings = RE / TA

M / B: market value per share/ Book value per share = M / B

CFROA: cash flow (CF) / Return on Assets (ROA) = CFROA

HHI: Herfindahl index

With further studies (Denis et al., 1994), could extend the Herfindahl index. He added curve slopes concentration to obtain the Herfindahl index. If the total number of firms in an industry is A and sales of the industry is  $n_i$ , and the firms is  $a_i$ , then the slope of the curve in this industry concentration is calculated as follows:

$$\frac{a_i}{A} = \frac{a_i}{A \cdot n_i}$$

Slope of the concentration curve

The total weight of slopes with a market share of each firm can be written as follows:

$$\sum_{i=1}^N \left( \frac{a_i}{A} \cdot \frac{1}{n_i} \cdot \frac{a_i}{A} \right) \quad (10)$$

It is clear that if  $1 = n_i$ , the Herfindahl index will be as follows:

$$H = \sum_{i=1}^N \left( \frac{a_i^2}{A^2} \right) = \sum_{i=1}^N \left( \frac{a_i}{A} \right)^2 = \sum_{i=1}^N s_i^2 \quad (11)$$

In this respect,  $\frac{a_i}{A}$  is the market share of each firm ( $S_i$ ). Herfindahl concentration index can be written using the

inequality index called the coefficient of variation. The average size of firms in the industry is:

$$\mu = \frac{1}{N} \sum_{i=1}^{i=N} a_i \tag{12}$$

Therefore, firm's size variance will be equal to:

$$\sigma^2 = \frac{1}{N} \sum_{i=1}^{i=N} a_i^2 - \mu^2 \tag{13}$$

And so the square can be written as a coefficient of variation:

$$c^2 = \frac{\sigma^2}{\mu^2} = \frac{\frac{1}{N} \sum_{i=1}^{i=N} a_i^2 - \mu^2}{\mu^2} \tag{14}$$

With the above fraction separation and means insertion, the following equation is obtained:

$$H = \frac{c^2 + 1}{N} \tag{15}$$

Information and data needed for research obtained from the library method, with the application of new achievements, and by referring to the Tehran Stock Exchange and the financial statements of listed companies in Tehran Stock Exchange in the period of 2009- 2013. In this regard, in addition to the basic financial statements, the financial statements of exchange information is used, too.

In this study, to analysis the data, analysis panel is used. Panel data analysis has high validity among researchers. A panel, is a cross-sectional sample or group of data which is comprehensive. Which is examined and surveyed periodically in a certain period. Data Panel analysis provides the possibility of conducting regression research both in space and time dimension. The next place to set the units sectional can include countries, states, counties, businesses, goods, groups or even single individuals. Dimension of time is observation of a set of variables that reflect the characteristics of the units during a specific time period. As noted, the tools used to collect data, includes statistical analysis and database analysis by using the software that are analyzed by descriptive and inferential statistics.

**6. Data Description**

The following table the indices including mean and median central and dispersion indices such as standard deviation, skewness and kurtosis are calculated for different variables. As average is greater than mean because the average will be affected by these values. In these cases, the data distribution is skewed to the right. In some cases, left. The distribution of any variable is skewed to the left or right. And if the mean and the median variables are equal, distribution of variables is symmetrical. This feature is important because symmetry is one of the characteristics of normal distribution. It will be discussed in the next section. (Skewness and kurtosis of the normal distribution is zero).

$$Div Pay = \alpha_0 + \beta_1 profitability + \beta_2 RE/TA + \beta_3 AGR + \beta_4 SIZE + \beta_5 M/B + \beta_6 ROA + \beta_7 CFROA + \epsilon_t$$

Table 2 Data Description

	Div Pay	HHI	SIZE	RE/TA	AGR	profitability	M/B	CFROA	ROA
Average	40.04	0.155	12.81	3.08	4.60	157.3	5.7	0.59	0.20
Mean	16.010	0.157	12.62	2.10	2.26	129.2	1.72	0.60	0.10
max	2540.025	0.219	17.39	16.15	42.05	2192.5	42.05	1.31	0.55
min	438.6-	0.001	10.09	0.303	0.30	0.000	0.47	0.000	0.7
Standard deviation	150.59	0.0112	1.31	2.65	6.77	169.98	8.19	0.25	0.20

To calculate coefficients, first the diagnostic panel and data compilation (homogeneous) is determined or with their effects

(heterogeneity), the Chow test and F Limer statistics are used. The results are shown in Table 3, 4

Table 3: determine homogeneous or heterogeneous sections

Hypothesis 0	Statistic F	The significance level	Test result
Combined model is proper	0.830163	0.7494	confirmed

The probability value is equal to 0.74, so the hypothesis 0 as the use of combined model (or models without effects or homogeneous) is confirmed. To evaluate the hypothesis test of market power and dividend policies, regression model is used as below:

$$Div Pay = \alpha_0 + \beta_1 profitability + \beta_2 RE/TA + \beta_3 AGR + \beta_4 SIZE + \beta_5 M/B + \beta_6 ROA + \beta_7 CFROA + \beta_8 HHI + \epsilon_t$$

The results are shown below in Table 4 panel:

Table 4: model with the combined effects

DIV PAY				
Research variables Factor	Coefficient	Standard deviation	T Statistics	significance level
Fixed amount	8106.7	18408.3	0.44	0.65
PROFIT	38690.8	6468.53	5.98	0.0000
RE/TA	37.06	10.79	3.43	0.0006
AGR	4102.2	269.62	15.21	0.0000
CFROA	29300.8	3910.20	7.49	0.0000
M/B	81.52	12.02	6.77	0.0000
SIZE	656.8-	1382.10	0.47-	0.63
ROA	9.14E-05	2.67E-05	3.42	0.0006
HHI	0.052	0.008	6.05	0.000

Coefficient of determination	0.71	Statistic F	56.45
Adjusted coefficient of determination	0.67		
Durbin-Watson statistic	2.25	significance level of F	0.0000

In Table (3) the model is estimated by the combined effects, significance level of F is equal to 0.000. The amount is less than 0.05, so the hypothesis 0 is rejected at the significance level of 95 percent. This means that at 95% significant level the model is meaningful. The coefficient of determination is 0.71, about 71% of the variability is explained by the independent variables. The Durbin-Watson statistic is equal to 2.25. Values close to 2 indicate lack of autocorrelation of regression residuals assumption (so there is no autocorrelation between residuals). PROFIT t statistic value is equal to 5.9 (positive and significant), RE / TA is 3.4 (positive and significant), the AGR is 15.21 (positive) and for CFROA it is equal to 7.49 (positive) and the M / B is equal to 6.77 (positive and significant), the SIZE is -0.47 (not significant) and ROA is 3.42 (positive and significant) and the HHI is equal to 6.05 (significant and positive). The t-statistic to intercept is equal to 0.440 at 95% of the hypothesis 0 so the amount is not significant.

### 7. Summary of hypothesis tests and research model

The first hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between profitability and dividend payments. Thus the first hypothesis, which expresses the relationship between profitability and dividend payment is confirmed.

The second hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between accumulated profits to total assets and dividends payments of companies listed on Tehran Stock Exchange

The third hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between the growth rates of assets and dividends paid by companies listed on the Tehran Stock Exchange. It should be noted that the size of the company, has a significant effect on the dividend, which indicates the size has no effect on dividend payments. And

The fourth hypothesis that expresses the relationship between firm size and dividend payments is not confirmed.

Consequently, the fifth hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between the market value to book value and dividends paid by companies listed on the Tehran Stock Exchange.

It should be noted that variable rate of return on assets, has a significant effect on dividend payment that demonstrate the effectiveness rate of return on assets and dividend payment. Therefore, the sixth hypothesis that indicates the relationship between the rate of return on assets and dividend payments, is also confirmed.

The seventh hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between the rate of return on assets, cash flow and dividends paid by companies listed on the Tehran Stock Exchange.

The eighth hypothesis test results, using fixed effects model and estimated generalized least squares method (EGLS) is provided. The results show a direct relationship exists between dividend

payout and the Herfindahl index of companies listed on Tehran Stock Exchange. This can be emphasized that if the degree of concentration in the industrial markets of Iran is increased, the profitability of firms active in these markets will increase. In other words, the profitability of monopoly industries is higher than the profitability of competitive industries in Iran.

### 8. Suggestions arising from the research findings

1. It is recommended that shareholders and investors who want to develop or purchase new shares pay attention to this issue. Because in inflationary conditions, there is a period in which data is used. Companies that can benefit from its assets which maintain the shareholder values in inflationary conditions. Not only it does not hurt, but the minimum value of the money they keep in such conditions is mentioned.
2. The results showed that there is a relationship between cash flow and dividend indirectly, which indicates two things. Companies convert their cash flow and asset to maintain value of money in inflationary conditions or pay debt maturities as an important principle when cash flows is economical. Cash flows of interest does not exceed the cost of maintaining it, therefore it is recommended to shareholders as indirect warning sign and not sign of crisis. So they better have reviews to buy or sell their shares.
3. The high market value of equity shows shares to be very valuable. Shareholders and investors are recommended to pay much attention to these case.
4. Based on this result, it is recommended to shareholders and investors that they consider various stages of the corporate life cycle financially. It means that the financial characteristics of an enterprise is affected by the stage of the life cycle in which the firm is located.
5. Usually companies that have high sales of assets, can take advantage of the return on assets or by selling unnecessary assets they increased corporate income at a time. That is to have positive effects. Shareholders are better to consider these issues when buying.

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**Primary Paper Section: A**

**Secondary Paper Section: AE**

## ANALYSIS THE RELATIONSHIP BETWEEN EMPLOYEE'S PSYCHOLOGICAL EMPOWERMENT AND JOB SATISFACTION (CASE STUDY: SADRA MUNICIPAL EMPLOYEES)

\*PARINAZ DINKANI, <sup>b</sup>SAEED FARSI

<sup>a</sup>Department of management, Islamic Azad University, Shiraz, Iran

<sup>b</sup>Department of management, Islamic Azad University, Shiraz, Iran

Email: <sup>a</sup>parinaz.dinkani12@gmail.com, <sup>b</sup>saeedfarsi@yahoo.com

**Abstract.** This study aimed to analyze the relationship between employees psychological empowerment and job satisfaction (Case Study: Sadra Municipal Employees) is done. The research is descriptive and correlational, for this purpose, study population was Sadra municipal employees selected by researcher in the study as their numbers at the time was 76 people, all members of society through the census designated as sample size and questionnaire distributed among the population. Validity through content and reliability of the questionnaire by Cronbach's alpha, respectively (0.86) and (0.98) were obtained, and to analyze the information obtained SPSS16 software is used. The results showed that there is a significant relationship between psychological empowerment and job satisfaction of Sadra municipal employees.

**Keywords:** psychological empowerment, job satisfaction, Sadra municipal employees

### 1 Introduction

Human resources should be considered as the most important asset of an organization that has a key role in achieving the organization goals, today, organizations spend high costs to attract and retain human resources till in competition field catch up from other competitors. At present, due to competition between organizations and companies in order to gain greater control over resources has gained importance. If organizations have the best technology and have the best possible benefit, but do not have the skilled and efficient work force and the ability to gain the necessary interest, unable to affect the environment and succeed in the competition. The quality of this investment is more favorable, the probability of success, survival and improving the organization.

### 2 Methodology

Since the factors of production, human resources unlike other corporate resources as the reason and the coordinator of the other known factors as well as the most important factor in increasing productivity and organization, so a special place and special attention should be paid to it (Allahverdi et al., 2009). Job satisfaction or dissatisfaction is the person's attitude way to job (Saatchi et al., 2008). Job satisfaction is person's general attitude towards the job (Kohistani and Shojaee Far, 2011). Job satisfaction is press mode, positive, emotional, and feel in relation to jobs as a result of individual assessment of his work experience is obtained (Keramati, Mirkamali and Gholam Zadeh, 2005). According to Specter, job satisfaction has two dimensions: the human aspect that is worthy of the employees to be treated fairly and with respect and the behavioral aspects of the behavior of employees according to job satisfaction could lead the way that is effective in organizational functions and tasks. Success largely to the efforts of satisfaction and motivation of human resources depends on their mood. Human resources for desirable behavior should be in line with the objectives of the organization, have the motivation and right to be raised and this does not happen except through whys identify behavior or desire causes and reasons for motivation and employee satisfaction. Job satisfaction is one of the most important variables in organizational behavior as well as a central variable in research and organizational theory (Darwishi, 2007).

Today, organizations progress requires to achieve higher quality and more innovative while cost savings. Knowledge of personality characteristics that influence employee motivation and belief in the organization is essential to the advancement of

human behavior (Ebrahimi Nejad and Soleimian, 2007). Managers surrounded how to motivate employees and their motivation to ease step removed. Job satisfaction is not only an issue of interested to organizations, also has attracted researchers' attention (Bushra & Usman, 2011). Increasing job satisfaction in an organization, the turnover is minimized, resulting in reputation and competitive position. Job satisfaction is one of the most important variables in organizational behavior as well as a central variable in research and organizational theory (Darwishi, 2007). Environmental changes and increasing global competition, the topic focuses on managers is employee empowerment. Why organizations with empowered employees, committed, skilled and motivated, better able to adapt to changes and compete. Empowerment, sharing the healthiest way people in power. In this way, confidence, energy, pride, self-sufficiency in people's commitment and sense of increased participation in organizational matters, improved performance will follow (Mohammadi, 2001).

Conger & Kanungo (1988) due to the following reasons for the severity of empowerment put it:

1. Studies management skills show that subordinates empower are an important part of organizational effectiveness and management.
2. The analysis of power and control in organizations suggests that employees share in power and control, increase organizational effectiveness.
3. Experience in organized groups implies that empowerment strategies play an important role in the creation and survival of the group and ultimately the survival of the organization.

#### 2.1 Research objectives

1. Explanation of relationship between psychological empowerment and job satisfaction of Sadra municipal employees
2. Explanation of psychological empowerment of municipal employees Sadra is significant predictor of job satisfaction
3. Explanation of the psychological empowerment of male and female of Sadra municipal employees is significant predictor of job satisfaction
4. Explanation of the psychological empowerment of Sadra municipal employees has significant predictor of job satisfaction

#### 2.2 Research questions

In this study, two standard questionnaires Spreitzer psychological empowerment (1995) and Minnesota job satisfaction (2012) was used.

**First questions:** is there a significant relationship between psychological empowerment of municipal employees Sadra and job satisfaction?

Table 1, the correlation between the variables of psychological empowerment (job significance, sense of competence, given the choice, feel effective, having trust in others) with job satisfaction has shown. The results obtained indicate that given the choice, job satisfaction ( $r=0.44$  and  $0.002 > p$ ) has a significant positive correlation with job satisfaction and sense of effectiveness ( $r=0.68$  and  $0.0001 > p$ ) has positive and significant relationship with job satisfaction. However, significant job with job satisfaction ( $r=0.17$  and  $p = nS$ ) and sense of competence with job satisfaction ( $r=0.17$  and  $p = nS$ ) has not a significant relationship.

Table (1), correlation coefficient result of research variables

Variable		Significant jobs	Sense of competence	Right to Choose	To be effective	Reliance on others
Job Satisfaction	Correlation coefficient	<b>0.17</b>	<b>0.02</b>	<b>0.44</b>	<b>0.34</b>	<b>0.48</b>
	Significance level	<b>0.14</b>	<b>0.84</b>	<b>0.002</b>	<b>0.0001</b>	<b>0.0001</b>
	Number	<b>74</b>				

**Second question:** Does psychological empowerment of Sadra municipal employees is a significant predictor of job satisfaction?

Based on the results in Table 2, observed, employee psychological empowerment 37 percent of the variance in job satisfaction predicted. The results indicate that trust to others

with regression coefficients 0.38, right to choose with regression coefficient 0.29, job significance with regression coefficient 0.22 has highest and the lowest has significant and positive predictive power of job satisfaction, but a sense of competence and effectiveness are not a significant predictor of job satisfaction.

Table (2) the prediction of job satisfaction based on employee's psychological empowerment variables

Predictor variables	Criterion variable	F	R	R <sup>2</sup>	β	t	Significance level
Significant jobs	Job Satisfaction	<b>8.14</b> <b>0.0001&lt;p</b>	<b>0.61</b>	<b>0.37</b>	<b>0.22</b>	<b>2.07</b>	<b>0.04</b>
Sense of competence					<b>0.06</b>	<b>0.57</b>	<b>0.56</b>
Right to Choose					<b>0.29</b>	<b>2.32</b>	<b>0.02</b>
To be effective					<b>0.04</b>	<b>0.34</b>	<b>0.73</b>
Reliance on others					<b>0.38</b>	<b>3.42</b>	<b>0.001</b>

**Third question:** Does man and woman psychological empowerment of Sadra municipal employees is a significant predictor of job satisfaction?

Based on the results in Table 2, observed, man employee psychological empowerment 41 percent of the variance in job

satisfaction predicted. The results indicate that trust to others with regression coefficients 0.45, right to choose with regression coefficient 0.33 has highest and the lowest has significant and positive predictive power of man employee's job satisfaction, but a sense of competence and effectiveness are not a significant predictor of man employee's job satisfaction.

Table (3) the prediction of job satisfaction based on man employee's psychological empowerment variables

Predictor variables	Criterion variable	F	R	R <sup>2</sup>	β	t	Significance level
Significant jobs	Job Satisfaction	9.06 0.0001<p	0.68	0.41	0.15	1.30	0.19
Sense of competence					0.03	0.57	0.75
Right to Choose					0.33	2.49	0.01
To be effective					0.005	0.34	0.97
Reliance on others					0.45	3.46	0.001

Based on the results in Table 3, observed, woman employee psychological empowerment 53 percent of the variance in job satisfaction predicted. The results indicate that trust to others with regression coefficients 0.86, job significance with regression coefficient 0.60, sense of competence with regression

coefficient 0.50 has highest and the lowest has significant and positive predictive power of man employee's job satisfaction, but trust to others and effectiveness are not a significant predictor of man employee's job satisfaction.

Table (3) the prediction of job satisfaction based on woman employee's psychological empowerment variables

Predictor variables	Criterion variable	F	R	R <sup>2</sup>	β	t	Significance level
Significant jobs	Job Satisfaction	4.74 0.0001<p	0.82	0.53	0.60	3.40	0.006
Sense of competence					0.50	2.40	0.03
Right to Choose					0.86	2.22	0.04
To be effective					0.44	1.21	0.24
Reliance on others					0.21	1.11	0.28

**Fourth question:** Does psychological empowerment of Sadra municipal employees with different degrees is a significant predictor of job satisfaction?

Based on the results in Table 4, observed, dimensions of employee psychological empowerment with diploma 52 percent of the variance in job satisfaction predicted. The results indicate

that trust to others with regression coefficients 0.68, right to choose with regression coefficient 0.50, job significance with regression coefficient 0.30 and sense of competence with regression coefficient 0.28 has highest and the lowest has significant and positive predictive power of diploma employee's job satisfaction, but effectiveness are not a significant predictor of diploma employee's job satisfaction.

Table (4) the prediction of job satisfaction based on diploma employee's psychological empowerment variables

Predictor variables	Criterion variable	F	R	R <sup>2</sup>	$\beta$	t	Significance level
Significant jobs	Job Satisfaction	6.88 0.0001 < p	0.78	0.52	0.30	1.47	0.01
Sense of competence					0.28	1.15	0.03
Right to Choose					0.50	2.47	0.004
To be effective					0.20	0.97	0.25
Reliance on others					0.68	3.59	0.001

Based on the results in Table 5, observed, dimensions of employee psychological empowerment with associate degree 37 percent of the variance in job satisfaction predicted. The results indicate that right to choose with regression coefficient 0.68, job significance with regression coefficient 0.44 has highest and the

lowest has significant and positive predictive power of associate degree employee's job satisfaction, but trust, sense of competence and effectiveness are not a significant predictor of associate degree employee's job satisfaction.

Table (5) prediction of job satisfaction based on associate degree employee's psychological empowerment variables

Predictor variables	Criterion variable	F	R	R <sup>2</sup>	$\beta$	t	Significance level
Significant jobs	Job Satisfaction	7.82 0.0001 < p	0.91	0.72	0.44	2.86	0.02
Sense of competence					0.03	0.20	0.84
Right to Choose					0.68	2.70	0.02
To be effective					0.008	0.04	0.96
Reliance on others					0.38	3.42	0.001

Based on the results in Table 5, observed, dimensions of employee psychological empowerment with bachelor degree 37 percent of the variance in job satisfaction predicted. The results indicate that trust to other with regression coefficient 0.59 has significant and positive predictive of bachelor employee's job satisfaction, sense of competence, right to choose and effectiveness are not a significant predictor of bachelor degree employee's job satisfaction.

### 3 Results

Correlation between the variables of psychological empowerment (job significance, sense of competence, given the choice, feel effective, having trust in others) with job satisfaction has shown. The results obtained indicate that given the choice, job satisfaction ( $r=0.44$  and  $0.002 > p$ ) has a significant positive correlation with job satisfaction and sense of effectiveness ( $r=0.68$  and  $0.0001 > p$ ) has positive and significant relationship with job satisfaction. However, significant job with job satisfaction ( $r=0.17$  and  $p = nS$ ) and sense of competence with job satisfaction ( $r=0.17$  and  $p = nS$ ) has not a significant relationship.

According to the results obtained from test this hypothesis; there is significant relationship between employees' psychological empowerment and job satisfaction. This means that the employees in the organization have benefited from more psychological empowerment, job satisfaction is more in them and motivating them to stay and work out more. In fact, psychological empowerment is a means to empower the individual; this means that the staff will help to strengthen their sense of self-confidence and to overcome their feelings of impotence and helplessness. So workers have this sense of empowerment in the organization are more satisfied and to leave the job less reluctant to think it does not show. The relationship between competence and job satisfaction has been confirmed that the relationship between their satisfaction and effective we can say that this feature is important because having a sense of competence is psychological empowerment element that determines and people will try to do hard work and perseverance. In fact, by increasing the effectiveness of job satisfaction also increases the sense of feeling effective in municipalities or individual tasks with the creation of a positive effect on the effectiveness of the organization. Results and significant correlation test and predictor of job satisfaction corroborates and it can be assumed that individuals are empowered with a sense of confidence and are confident that the

organization treats them fairly and staff feel more prepared to trust the honesty and sincerity to pretend they and their successor more research-oriented, autonomous, self-confidence and are eager to learn. Also significant relationship between feelings and choices with job satisfaction results show that direct and meaningful relationship between these two components is obtained. When employees feel it is important and valuable to pursue career goals and their work is important and more committed and involved and more show perseverance and the pursuit of desired goals.

Based on the results in Table 2, observed, man employee psychological empowerment 41 percent of the variance in job satisfaction predicted. The results indicate that trust to others with regression coefficients 0.45, right to choose with regression coefficient 0.33 has highest and the lowest has significant and positive predictive power of man employee's job satisfaction, but a sense of competence and effectiveness are not a significant predictor of man employee's job satisfaction.

In addition, it observed woman employee psychological empowerment 53 percent of the variance in job satisfaction predicted. The results indicate that trust to others with regression coefficients 0.86, job significance with regression coefficient 0.60, sense of competence with regression coefficient 0.50 has highest and the lowest has significant and positive predictive power of man employee's job satisfaction, but trust to others and effectiveness are not a significant predictor of man employee's job satisfaction.

The results show that the harmony and psychological empowerment significant difference between male and female employees in other words, psychological empowerment of women employees are significantly more likely than men and this is probably due to the sense of competence and means to render the top women in the municipality. However, trust others and feel significantly more effective in men than in women and this is probably due to the feeling of being effective and trust in the men in our society. Expected increases in measures enabling organizations to increase awareness and experience of the staff, enhance their sense of participation and the need to improve efficiency, especially in the years between employments, due to the inadequacy of the measures considered to be of enabler. On the other hand enabling the organization may be more focused groups that have been established in the organization at the same time until retirement and have more opportunities. Study limitations during employment, contractual employees and

contractual restrictions on access to certain institutional advantages and opportunities, greater attention to key employment categories, disproportionate allocation of educational and administrative facilities, and inadequate investment on conventional forces and could be the reason. Better empowerment of women employees in the research and commitment of women to a greater sense of empowerment knows, the result of the study is consistent with the results Abesi and Kord (2009), Cloet et al., (2002).

Based on the results observed, dimensions of employee psychological empowerment with diploma 52 percent of the variance in job satisfaction predicted. The results indicate that trust to others with regression coefficients 0.68, right to choose with regression coefficient 0.50, job significance with regression coefficient 0.30 and sense of competence with regression coefficient 0.28 has highest and the lowest has significant and positive predictive power of diploma employee's job satisfaction, but effectiveness are not a significant predictor of diploma employee's job satisfaction.

In addition, it observed, dimensions of employee psychological empowerment with associate degree 37 percent of the variance in job satisfaction predicted. The results indicate that right to choose with regression coefficient 0.68, job significance with regression coefficient 0.44 has highest and the lowest has significant and positive predictive power of associate degree employee's job satisfaction, but trust, sense of competence and effectiveness are not a significant predictor of associate degree employee's job satisfaction.

It observed dimensions of employee psychological empowerment with bachelor degree 37 percent of the variance in job satisfaction predicted. The results indicate that trust to other with regression coefficient 0.59 has significant and positive predictive of bachelor employee's job satisfaction, sense of competence, right to choose and effectiveness are not a significant predictor of bachelor degree employee's job satisfaction.

In addition, it observed, dimensions of employee psychological empowerment with MA degree 37 percent of the variance in job satisfaction predicted. The results indicate that right to choose with regression coefficient 0.71 and sense of competence with regression coefficient 0.54 and trust to other with regression coefficient 0.45 has significant and positive predictive of MA employee's job satisfaction, sense of competence, right to choose and effectiveness are not a significant predictor of MA degree employee's job satisfaction.

The results show that the increase in average tests and psychological components of empowerment by increasing qualification. According to the results obtained by separation according to degree, these species can be deduced and the research community feels with a higher degree of psychological empowerment of employees increased. However, 53 percent of the changes in employees' job satisfaction hold a diploma predicted. In today's competitive environment, organizations with an amazing transformation must be managed. In such circumstances, managers do not have much time to control employees and must spend most of your time and energy identifying the internal and external environment, and other everyday tasks entrusted their staff. When employees can handle well in tasks of skill, knowledge and ability necessary well understand and objectives of the organization. A tool can help managers in the field to rush the process of empowerment. It enables a new method for the survival of the lead to organizations in the competitive environment. A successful organization is composed of people with intellectual and set common goals with flexible teamwork in the organization; experiences and knowledge to development of the organization are located. Therefore, each individual has a functional organization that does have a sense of ownership. The use of suitable potential is huge advantage for any organization. Today's organizations are affected by factors such as increased

global competition, rapid changes, the need for quality and after-sales service and limited resources and are under a lot of pressure. After many years of experience, the world has concluded that if an organization wants to be a leader in economic and business affairs and must not fall behind the competition from experts, creative and motivated is high. Human resources constituted the real wealth of an organization effective educational system by promoting job skills and human resources is an increased efficiency. The educational system is not efficient and is not tailored to the needs of time and business, virtually the organization's efforts to strengthen human resources to results comparable to those countries that have favorable conditions, will not get. The results of the studies are consistent with results conducted by Hassanpour et al., (2009) and Bennis et al., (1985), Clark and Stander (2014).

#### 4 Applied research proposals

Please enable their employees based on specifications and willingness to transfer its knowledge and efforts to promote the valuation. In order to comply with the payment of the salary of the actions that led to encouraging people to empower the organization. Encourage employees whose individual skills, team and improve the quality of their work. They use their own experience and others that may be useful or negative, are used. Empower people with the skills and values they admired their work and to respect all ideas and suggestions will be considered.

1) Measures such as job rotation, job enrichment and empowerment and according to the enjoyable work, perception of meaning at work improved and managers can plan with enabling employees to achieve in these areas. In particular, the results were significant aspect of influence and competence, these measures can be effective steps taken to strengthen these two dimensions.

2) Organization tries to improve relations between managers and employees. In this respect, goal setting program function can be useful. Since the quality of the relationship between employees and supervisors adequate time properly carry out the duties assigned to staff, this applies to goal setting programs, set performance targets for each employee. That the duties of staff for a clear and specific time to be determined by taking to achieve the goal. After the designated time, the assessment of individual activities and feedback given to employees finally, based on the tasks that employees do they have weaknesses, determine an appropriate educational program.

3) Identify key personnel in the organization. Key staff are very creative people and effective that will empower them to empower others and with greater participation than they used. They trained in behavior and psychological empowerment and the roots of the organization as they used to enhance the capabilities of other employees. In addition, it will lead to increase good relations between employees and increase their interest in staying in the organization and the lack of turnover.

#### 4.1 Management proposals for future research

Future researchers who are interested in research in this field is suggested that:

- The study for analysis and comparison between public and private organizations and companies to do different work environments and activities examined in this regard.
- Other factors affecting research by bringing in models such as the effect of organizational climate, organizational health, communication management, organizational commitment, personality characteristics.

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## EFFECTIVENESS OF METACOGNITION TRAINING AND SHORT-TERM DAILY PRACTICE OF MATHEMATICS IN ACADEMIC ACHIEVEMENT AND ATTITUDES TOWARDS MATHEMATICS

<sup>a\*</sup>SAADI LOTFALI, <sup>b</sup>ZARGHAM GHANBARPOUR ALEM

<sup>a</sup>*Cognitive Psychologist (MA), Institute for Cognitive Sciences Studies-Tehran, Iran & Family Consulting center (Learning disability therapist)& School consultant in education. Second district in karaj city, Iran*

<sup>b</sup>*School consultant (MA), Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University. Tehran, Iran & Family Consulting center (Family therapist) & School consultant in education. Second district in karaj city, Iran*

Email: <sup>a</sup>Saadi\_lotfali@yahoo.com, <sup>b</sup>zghanbarpor@yahoo.com

**Abstract.** An experimental pretest post-test control group research design was used for the conduct of this study in which 50 junior high school students with weak performance in mathematics were selected by purposive sampling method. These participants were then assigned randomly in experimental and control groups (25 participants in each group). The obtained data were analyzed using descriptive and inferential statistics, which included repeated measures ANOVA. The results of data analysis showed that metacognitive skills training and daily short-term practice of mathematics had a significant effect on the students' attitudes towards mathematics and their performance in this course in the experimental group. It is notable that this significant impact was at play after three months from the passage of the intervention.

**Keywords:** metacognition training, academic achievement, attitudes to mathematics

### 1 Introduction

Mathematics or calculation has been called the universal language. Calculation is a symbolic language that enables human to think about things, record them, and relate thoughts and relations between quantities to each other. In the present age, education and training, and generally education constitute an important part of people's lives; furthermore, the quality and quantity of education also plays an important role in the future of people. Accordingly it is for almost a century that psychologists are widely seeking to identify predictors of academic achievement. In different societies, professional groups and psychologists have always emphasized the review of various aspects of education and the effective factors in it (Lounsbury, Steel, Loveland & Gibson, 2004). In this way, not only students and their families spend huge costs on the education of students at different levels of education, but also the society spends huge costs. Thus, the achievement of positive results in the field of education along with the identification and control of the factors affecting academic achievement can lead to all-round development of students and the community. Teachers and students believe that mathematics is essential in daily life due to its widespread use and competency in mathematics is a crucial predictor of economic efficiency in the society (Ministry of Education, Ontario, 2005). Mathematics is an important lesson in education for the preparation of students for jobs. Math skills are often considered as a filter for professional life pathway. The study of the factors affecting academic achievement in math course has attracted the attention of educators more than ever over the past three decades (Wang, Fuchs & Fuchs, 2016). The sense of inability in mathematical problem solving or a lack of talent in math along with feeling of low level of math intelligence may gradually cause negative attitudes towards math. Attitudes are defined as positive or negative emotional dispositions; and motivational elements have been composed of beliefs, attitudes, values, and concerns (Aiken, 2000). Students' attitudes toward math are among the main components correlated with performance in this course (Pimta, Tayruakham & Nuangchalerm, 2009). Research findings have shown that academic achievement in math depends on information processing procedure, science structure, and motivational factors (Bassant, 1995). It is notable that these factors (attitude toward math, performance, inability in math or lack of talent) support each other as a cycle. The improvement and compensation of students' weaknesses in mathematics can have an important role in students' academic motivation. Mathematics can be a paly as

one of the academic courses determining the future of students due to its important role in the continuity of education (Park et al., 2016).

Metacognition refers to the knowledge that people have about their thought processes; similarly, metacognition has been also defined as thinking about learning. Metacognition has been defined as people's knowledge about how to make efficient use of cognitive processes and achieve learning objectives. Successful students not only act efficiently in the acquisition, storage, and retrieval of knowledge when needed (cognitive processes), but they also supervise their own perception of the contents and the accomplishment method of these processes. They will do an appropriate action whenever they find themselves confused. In addition, such students are autonomous individuals because they themselves monitor their own understanding and learning by means of their metacognitive knowledge. Here, the teacher does not monitor their learning by asking questions (Jacobse & Harskamp, 2010). Kai (1992) concluded that progress in mathematics largely requires the awareness of different learning strategies and their implementation. Vaidya (1999) showed that meta-cognitive activities have monitoring nature and can be used as a convenient tool for learning mathematics. Montague (1996) argues that teachers cannot teach mathematics in such a way that it can come long lasting if they are not familiar with metacognitive teaching methods.

Metacognitive knowledge refers to a set of beliefs that people have about themselves, mathematics, and nature of mathematical thinking. For example, many students believe that they should remember the mathematical thoughts and formulas that are transferred by professionals in authority, such as teachers. Therefore, they expect to have ready-made formulas at their disposal for the situations that they have already studied. In this regard, they may easily succumb or cannot cope with the analysis of the situations they have been able to understand if they forget the formulas. This knowledge can be used in a variety of exercises and lesson plans. One of these methods can be taught to individuals in the form of daily exercises. This study was an attempt to embark on teaching these skills in a variety of exercises, such as presentation of problem-solving skills motivational short-term exercises, utilization of learning and imaginative strategies in mathematics performance, and attitudes towards mathematics.

The present study aims to examine whether teaching of metacognition skills and short-term daily exercises can improve academic achievement of weak students in mathematics and promote their positive attitudes towards this course.

### 2 Method

A quasi-experimental research design along with pretest posttest control group was used for the conduct of this study. All the junior high school students of Ghasem ibn al-Hasan constituted the statistical population of this study. From among this population, 50 junior high school students with weak performance in mathematics were selected by purposive sampling method. It is noteworthy that these participants were selected with the observance of inclusion and exclusion criteria, such as no consumption of psychiatric drugs, not suffering from any physical illness, and informed consent. These participants were then assigned randomly in experimental and control groups (25 participants in each group). The experimental group received metacognitive skills towards learning mathematics; furthermore, this group was provided with the explanation on the persistent factors contributing to weakness in mathematics. Also the effectiveness of the current intervention program in mathematical achievement and the improvement of attitudes to mathematics were presented. Accordingly, this group was trained by short-term mathematical practices on daily basis. Both

groups were evaluated before, during, and after the intervention based on Aiken's Mathematics Attitude Scale and academic achievement score in mathematics. The obtained data were analyzed using descriptive and inferential statistics, which included repeated measures ANOVA.

### 3 Instrumentation

#### 3.1 Attitude toward Mathematics Scale

Attitude toward Mathematics has been measured with "Attitude toward Mathematics Scale" (Aiken, 1979, Aiken & Groth-Marnat, 2005). This scale consists of 24 items that are scored in a 5-point Likert scale (SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, SA=Strongly Agree). This scale consists of four subscales, namely pleasure, important, motivation, and fear toward mathematics. The re-test reliability coefficient of the total scale has been reported to range from 0.90 to 0.94 (Aiken & Groth-Marnat, 2005). The reliability of this scale has been confirmed in several international studies (Yushau, 2006; Wong, 2001; Olson, 2002).

#### 3.2 Intervention

In the present study, three dimensions were taken into consideration. The first one was aimed at the best way for learning mathematics. For this purpose, metacognitive strategies were taught to students in one session to learn and practice how to solve mathematical problems. The second dimension of this

intervention consisted of teaching how to do daily exercises and practices (the number of math problems that students must solve per day). This dimension also included the concentration on the short-term effectiveness of daily exercises in terms of cognitive and motivational learning. The third dimension contained the registration of activities as monitoring their own activities and reporting of daily activities. In fact, the students wrote down and reported their daily activities in a table. In addition, students were informed of their progress by self-assessment and teacher assessment. It is noteworthy that such factors as metacognition training metacognitive strategies in learning, bodily training of reading and math homework, teaching of background construction and problem solving, teaching of monitoring, review of the previous sessions, and the fulfillment of homework were the main themes of metacognition training.

#### 3.3 Academic achievement in mathematics

Academic achievement in mathematics has been measured by an academic achievement test prepared by teachers. The results were then analyzed using SPSS Software.

### 4 Results

In Table 1., the mean scores of experimental and control groups have been shown for each component of attitudes towards mathematics as well as math scores in pre-test, post-test, and follow-up stages.

Table 1: The mean scores of two groups for attitudes towards mathematics and math scores in pre-test, post-test, and follow-up stages

Variable	Group	Mean before treatment	Mean after treatment	Mean of follow-up test
Fear	Experimental	21.81 (5.08)	17.88 (4.29)	18.62 (4.25)
	Control	22.14 (5.18)	21.96 (4.56)	21.77 (4.05)
Important	Experimental	22.88 (5.02)	18.12 (4.06)	18.69 (4.85)
	Control	22.12 (4.39)	21.23 (4.68)	21.46 (3.73)
Motivation	Experimental	15.92 (2.65)	21.00 (3.77)	20.16 (4.78)
	Control	17.73 (3.40)	17.23 (3.44)	16.88 (3.52)
Pleasure	Experimental	18.05 (3.70)	23.78 (3.60)	21.69 (3.16)
	Control	19.58 (4.63)	18.77 (4.86)	18.31 (3.46)
Math Score	Experimental	10.50 (2.47)	16.00 (1.70)	15.65 (2.81)
	Control	10.07 (2.56)	10.46 (2.06)	10.81 (2.38)

Repeated measures ANOVA was used to analyze the collected data. For this purpose, the assumptions required for the conduct of this parametric test were examined. These assumptions included normal distribution, homogeneity of variances, and

sphericity. Table 2 indicates the results of repeated measures multivariate analysis of variance on the pre-test, post-test, and follow-up in terms of attitude towards mathematics and mathematical scores for the experimental and control groups.

Table 2: Repeated measures multivariate analysis of variance for the impacts between participants

Variable	Effect	Test	Value	F	Df Hypothesis	Df Error	Sig.	Effect size
Fear	Time	Wilks Lambda	0.297	10.32	2	49	0.001	0.25
	Time*Group	Wilks Lambda	0.354	9.41	2	49	0.001	0.24
Important	Time	Wilks Lambda	0.480	7.58	2	49	0.001	0.22
	Time*Group	Wilks Lambda	0.706	4.72	2	49	0.012	0.13
Motivation	Time	Wilks Lambda	0.415	8.46	2	49	0.001	0.23
	Time*Group	Wilks Lambda	0.124	13.82	2	49	0.001	0.32
Pleasure	Time	Wilks Lambda	0.862	2.37	2	49	0.077	0.07
	Time*Group	Wilks Lambda	0.795	6.04	2	49	0.001	0.20
Math Score	Time	Wilks Lambda	0.047	3.25	2	49	0.001	0.58
	Time*Group	Wilks Lambda	0.088	21.18	2	49	0.001	0.43

As it can be observed in Table 2, the time factor has made a significant difference between the pre-test and post-test scores of fear ( $P<0.01$ ), importance ( $P<0.01$ ), motivation ( $P<0.01$ ), and math score ( $P<0.01$ ). However, no significant difference was observed between the pre-test and post-test scores of pleasure ( $P>0.05$ ). In addition, the interaction of time and group effect was revealed to be significant in components such as fear

( $P<0.01$ ), importance ( $P<0.05$ ), motivation ( $P<0.01$ ), pleasure ( $P<0.01$ ), and math score ( $P<0.01$ ). This means that the experiment has made significant changes in these variables.

Table 3 shows the results of repeated measures ANOVA for pre-test, post-test, and follow-up test scores in components of attitudes towards mathematics and math scores for the experimental and control groups.

Table 3: Repeated measures ANOVA results for the impacts between participants

Variable	Source of changes	Sum of squares	Df	Mean Square	F	Sig.	Effect size
Fear	Time	125.13	1	71.46	12.87	0.001	0.26
	Time*Group	102.64	1	51.37	10.04	0.001	0.21
Important	Time	243.72	1	127.45	23.67	0.001	0.38
	Time*Group	120.36	1	62.28	11.52	0.001	0.24
Motivation	Time	146.29	1	79.63	17.41	0.001	0.30
	Time*Group	246.33	1	130.48	24.60	0.001	0.40
Pleasure	Time	116.72	1	63.12	3.58	0.036	0.10
	Time*Group	251.90	1	137.24	7.06	0.001	0.16
Math Score	Time	287.53	1	145.06	29.37	0.001	0.52
	Time*Group	197.14	1	100.62	20.72	0.001	0.34

As it is indicated in Table 3, the time factor (pre-test to post-test) has been found to be significant in fear ( $P<0.01$ ), importance ( $P<0.05$ ), motivation ( $P<0.01$ ), pleasure ( $P<0.05$ ), and math score ( $P<0.01$ ). In other words, the changes in the experimental group have been significant over time. Similarly, the interaction of time and group has been also significant in components in these variables. In other words, the changes over time were significantly different between the two groups. Therefore, the above results may lead one to arrive at the conclusion that educational intervention will significantly result in the improvement of attitudes towards mathematics and increase of math scores.

Figure 1 confirms the fact that the experimental group receiving the educational intervention has obtained considerably higher scores regarding the improvement of attitudes towards math scores than the control group in the course of the study. On the other hand, the mean score of the control group has declined following the follow-up stage. In addition to visual inspection of the graphs, the effectiveness and impact factor reflect the significant and remarkable increase in attitudes towards mathematics in the experimental group. Figure 1 shows the changing process in attitudes towards math scores in the experimental and control groups more precisely.

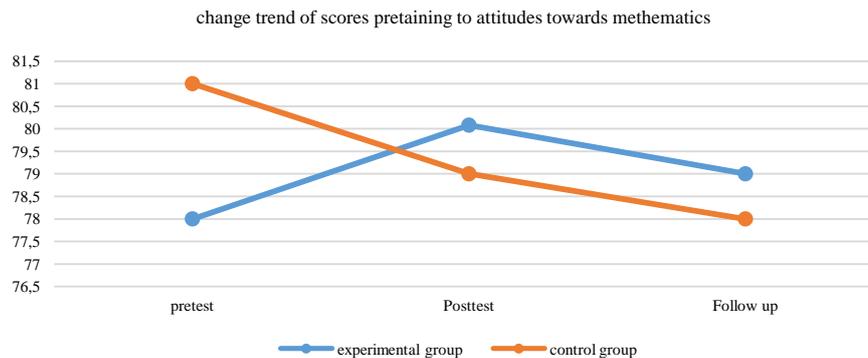


Fig. 1: Change trend of mean scores between the two groups in terms of attitudes towards mathematics in pre-test, post-test, and follow-up stages

Figure 2 also indicates that the experimental group receiving the educational intervention gained significantly higher math scores than the control group. On the other hand, the mean score of the

control group has not experienced a significant increase after the follow-up stage. The effectiveness and impact factor suggest the significant increase of the experimental group's math scores.

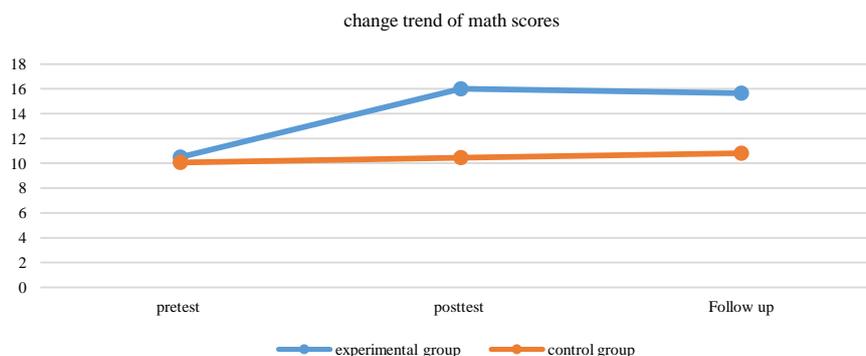


Fig. 2: Change trend of mean scores of math between the two groups in pre-test, post-test, and follow-up stages

## 5 Conclusion

The results of data analysis showed that metacognitive training and short-term and daily math practice of mathematical problem solving were significantly effective in the improvement of mathematical academic achievement positive attitudes among the junior high school students. These findings are consistent with those of the studies done by Rapport et al. (2013), Passolunghi et al., (2016), Witt (2011), and Bugden, DeWind & Brannon (2016). The children having difficulty in learning mathematics also encounter difficulty in applying the principles of metacognition. On the other hand, metacognitive training will naturally lead to the improvement of mathematical performance in the children having difficulty in learning mathematics since metacognition organizes and regulates the cognition and learning process. Another reason that proves the necessity of metacognition training to the students is that metacognitive process in these children is not fulfilled automatically unlike normal children; thus, they need to compensate for this shortcoming by training and teaching (Schneider, & Artelt, 2010). Since the time mathematics educators have found that non-cognitive aspects of problem-solving performance are due to the importance of its cognitive aspects, metacognition, meaning knowledge and cognitive control, has attracted much attention of the research community of mathematics education. Therefore, interest in the study of the role of metacognition in mathematical problems is quite useful (Kaune, 2006).

Metacognition training is effective in the improvement of students' attitudes in addition to the creation of some skills regarding students' reading styles. This is so because students learn that it is possible to look at the issue be a fresh and new approach and to use modern methods to establish a connection and link with the problems. In addition to the occurrence of this attitude in mathematics and its performance, this attitude will also come effective in people as well because the metacognitive ability is a general quality that positively influences people's emotions, cognition, and behaviors in addition to dealing with mathematical problems.

Daily math problem solving in a short time has some benefits for students. They solve only 3 or 4 math problems every day that is not a boring activity. On the other hand, this method of problem solving gradually leads to a large amount of learning activities (21 to 28 math problems per week, 84 to 112 ones per month, and 168 to 224 ones every two months). This is a reality that rarely happens to students weak in academic achievement who do this volume of practices in the mentioned short time. Another positive aspect of this model of math exercise is that students learn math skills gradually and this leads to deep understanding of the problems that prevents forgetting. As the research findings of the present study suggest, short-term practice of mathematical problem solving leads to students' increased scores in academic achievement tests. The current research findings suggest that the increase of math scores improves positive attitudes towards mathematics. This finding is in line with the findings of previous studies wherein it was found that there is a significant

relationship between attitudes towards mathematics and academic achievement (Goodykoontz, 2009; Pimta et al., 2009; Bassant, 1995; Hembree, 1990; Lyons & Beilock, 2012; and McLeod, 1988).

It seems that daily interaction with the mathematical course books and success in mathematical problem solving bring about positive attitudes towards mathematics. Success is pleasurable, eliminates fear of math exam, motivates students for greater achievements, and eventually leads to the improvement of students' mathematics scores and attitudes towards mathematics. Attitudes towards mathematics originate from factors such as performance, grades, concerns and worries, abilities, and self-efficacy, which can be expected to improve student performance. These attitudes subsequently promote some students' dimensions such as self-efficacy, self-esteem, and self-confidence. Finally, it can be concluded that metacognition training and short-term daily practice of mathematics are effective in students' mathematical attitudes and performance. In this way, teachers are recommended to become familiar with these concepts and methods and implement these training methods in the classroom to improve student performance.

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## INVESTIGATING BRAND EQUITY AND FACTORS AFFECTING IT IN PUBLIC, PRIVATE AND NEW PRIVATIZED BANKS: CASE STUDY OF SEPAH, PARSIAN AND MELLAT BANKS

<sup>a</sup>\*SHIRIN YOUSEFI, <sup>b</sup>HASSAN ESMAILPOUR, <sup>c</sup>FARIDEH HAGHSHENAS KASHANI

<sup>a</sup>M.A. Student of Azad University Central Tehran Branch

<sup>b</sup>D.B.A. Professor, Faculty of Management, Azad University Central Tehran Branch

<sup>c</sup>Assistant Professor, Faculty of Management, Azad University Central Tehran Branch

Email: <sup>a</sup>shirinyousefi.sy@gmail.com,

<sup>b</sup>hasan.esmailpour.me@gmail.com,

<sup>c</sup>arideh.haghshenas.kashani.phd@gmail.com

**Abstract.** In today's competitive world, only organizations which have a strong and futurist perspective have understood the necessity of investigating brand equity. Today, there is an intense competition among banks which requires investigating brand equity among banks. Therefore, this research aims to investigate brand equity and factors affecting it in public, private and new privatized banks. The research methodology is based on investigating Banks analyzed according to similar structural models. Research results indicate that brand equity and factors effecting it influence directly creating value for customers in all kinds of banks. The final finding of the research shows the prioritizing different types of banks based on brand equity suggesting that banks have respectively the highest and lowest brand equity.

**Keywords:** Brand Equity, Brand Awareness, Brand Loyalty, Brand Association, Perceived Quality of Brand, Customer Value

### 1 Introduction

In today's competitive world, only organizations which have a strong and futurist perspective have understood the necessity of investigating brand equity. Accordingly, it requires investigating brand equity to deal with lack of coordination and unity of their mechanisms in relation with brand commitments; since brand equity is the cause of value, reliability and better performance of an organization successfully and continuously in future. Brand equity led marketing to be separated from one-sided mood and aim to achieve more effective and stronger relationship than before; therefore, it deals with a bilateral relationship between manufacturers and customers and is considered as a milestone leading the company to progress and develop in future much more than before.

Today, there is an intense competition among banks in Iran; therefore, the main question is that which kind of public, private and new privatized banks has the higher brand equity. To answer this question, the brand equity of Sepah, Parsian and Mellat banks is investigated. On the other hand, it is important that companies can determine higher price for their products according to a powerful brand and create a better commercial leverage and increase their margins and profits and finally reduce their vulnerability against competitors (Aaker & Joachimsthaler, 2000)

#### 1.1 Significance of the study

Brand is a living entity and as business needs to change, brand also needs to change, be developed and modified. Any reason for change must be carefully discussed among employees and involve them in the process of brand development rather than dictate them later. Brand implementation should be examined in terms of respecting values to ensure that fundamental features included in the heart of the brand (which have provided the way for brand success) are not distorted or forgotten (Davis, 2009).

Brand equity is a set of features experienced by customers as a basis for brand commitment. Brand equity gives it personality and leads to emotional relationship resulted in confidence and brand loyalty.

It is a key point for agencies and individuals to maintain brand equity and brand consistency and also pay attention to them and innovation all the time.

Another key point is that in today's competitive world, only customers will determine the future status of organization.

#### 1.2 Purpose of the Research

1. Investigating brand equity and factors effecting it in public, private and new privatized banks
2. Determining the highest brand equity among mentioned banks

#### 1.3 Review of related literature and hypotheses development

The concept of brand equity which is one of the most important categories in today's marketing was first formed in 1980s. Several approaches have been proposed in relation with brand equity which customer-based brand equity and brand equity based on financial value are considered as the most popular ones. Proponents of brand equity based on financial value extract brand equity from other assets of company. According to this approach, brand equity is an increasing cash flow which is obtained from named products in addition to cash flows resulted from unnamed ones (Kapferer, 2008). In contrast, customer-based brand equity is defined as various affects which brand knowledge has on customer response to brand marketing (Keller, 2008).

A brand has a positive business value when customer sees the brand name on the product, he will be more interested to purchase the product than the time he does not observe it; and this value is negative when the customer sees the brand name, he will purchase the product with less interest (Keller, 2008).

The Marketing Science Institute defines brand equity as follows:

A set of brand associations and behaviors in relation with brand customers, members of the channel and parent company which allows brand to make more money or have more margin than the time there is no brand and it makes brand strong, persistent and distinctive against competitors (Gordon, 2003).

Brand equity is a growing interest and value added to a product by the brand name such as Coke, Kodak, Levi's and Nike. (Farquhar & Ljir, 1991) Since the concept of "brand equity" was introduced, researchers and marketing activists have paid growing attention to it (Cobb-Walgreen et al., 1995). This issue has led to the emergence of many definitions of brand equity such as added value by the brand name (Cobb-Walgreen et al., 1995), growing interest (Kamakura & Russell, 1993), difference between brand preference and the preference of some features based on the targeted measured levels of features (Park & Srinivasan, 1994) and overall quality and selection bias (Agarwal & Rao, 1996).

According to customer-based approach, Keller (1993) defines brand equity as distinct effects which brand knowledge has on customer response to brand marketing (customer-based brand equity). Based on the brand equity level, Professor David Aaker (1991) defines brand as a set of assets and commitments related to a brand, its name and a symbol by which the value provided by the product, service or customers of a company is added or reduced.

According to the economic information, Erdem & Swait (1998) have argued that customer-based brand equity is value of a brand as an acceptable sign of a product status.

More generally, brand equity is defined as value added to a company, business or customer which is given to a product by brand (Farquhar, 1989).

Mc Queen (1991) defines brand equity as difference between value of a product with brand and its value without brand.

According to the behavioral customer-based brand equity, Yoo & Dothu (2001) defines brand equity as various responses between customers of an original brand and a product without brand when both have the same level of marketing incentives and product features. Finally, brand equity is an added value which is granted to products or services. Brand equity may be obvious in customers' thinking way, feeling and acting against brand as it is observed in prices, market share and profitability achieved by brand (Keller, 2008).

#### 1.4 Brand equity

**Conceptual definition:** Brand equity is a set of assets and commitments related to the brand name or symbol (mark) (Aaker, 1995).

**Operational definition:** Brand equity refers to components of brand awareness, brand loyalty, perceived quality of brand and brand image.

#### 1.5 Brand association

**Conceptual definition:** Brand association is an asset leading to distinct reasons to purchase a product and affects feelings about a product and creates the basis of brand extension (Aaker, 1995).

**Operational definition:** Brand association refers to some categories such as indicators which show positive brand image; bank modernity; from customer perspective, bank history of work is successful; bank image differs compared to other competitors; bank services are regarded as the first choice of customers compared to other competitors; bank services are used and selected by customers more than once; bank is responsible against the society; bank is honest against customers and has a positive history of work.

#### 1.6 Perceived quality of brand

**Conceptual definition:** Perceived quality of brand refers to customer judgment about the superiority of a product (Zeithaml, 1998).

**Operational definition:** Perceived quality of brand refers to some categories such as indicators which show positive quality of bank brand; up-to-date services of bank; having a respectful and an appropriate relationship with customers; ease of banking operations; comprehensiveness of bank services; superiority of bank services compared to other competitors; the time spent by the customer to use services of this bank is valuable; costs paid to be in relation with this bank be acceptable for the customer; try made by the customer to be in relation with this bank is valuable; and finally bank brand be unique.

#### 1.7 Brand awareness

**Conceptual definition:** Brand recognition and brand recall (Keller, 2008).

**Operational definition:** Brand awareness refers to categories such as understanding services provided by the bank; distinctive banking services compared to other banks; paying attention to this bank when having a banking work; understanding the difference between banking services compared to other competitors; understanding the superiority of services offered by this bank compared to other banks; being familiar with the services of this bank and finally having a positive view toward the brand extension of this bank.

#### 1.8 Brand loyalty

**Conceptual definition:** Brand loyalty refers to an advantage in which a customer is frequently purchasing a product from a

supplier instead of buying it from multiple suppliers (Boundless, 2015).

**Operational definition:** Brand loyalty refers to use of services of a bank, even if competitors offer better advantages; introducing and offering this bank to others; having a sense of ownership to this bank; having a sense of satisfaction towards the bank and being sure that customers do not use the services provided by other competitors.

#### 1.9 Customer value

**Conceptual definition:** Customer value refers to perceived advantage by the customer to evaluate products' features, features' functions and achieved logical outcomes of easy use or lack of access to overall objectives and intentions of the customer when applying opportunities (Woodroffe, 1997).

#### 1.10. Hypotheses or research questions

##### Main hypothesis

Mellat Bank's brand equity has the most effect on creating value for customers among other Banks investigated in this research.

##### Subsidiary hypotheses

1. Sepah Bank's brand awareness has the most effect on creating value for customers among other Banks investigated in this research.
2. Mellat Bank's perceived quality of brand has the most effect on creating value for customers among other Banks investigated in this research.
3. Mellat Bank's brand loyalty has the most effect on creating value for customers among other Banks investigated in this research.
4. Parsian Bank's brand association has the most effect on creating value for customers among other Banks investigated in this research.

## 2 Method of the Research

### 2.1 Statistical population and sample size

Research population includes all customers of various branches of Sepah, Parsian and Mellat banks in Tehran who use different services provided by these banks and have an active checking account. Therefore, the mentioned banks situated in five regions: north, south, west, east and central part of Tehran were randomly studied in February 2015.

To determine the sample size, random sampling method, the sample size formula of infinite population, and Cochran formula were used and 384 people were selected.

### 3 Data analysis and findings

In this study, Aaker's brand equity questionnaire was used; this questionnaire has 32 questions and for parameters of brand loyalty, brand association, perceived quality of brand and brand awareness.

To review questionnaire components and to ensure the representativeness of necessary parameters which the researcher aimed to measure, content validity was applied. For this purpose, the questionnaire prepared by several professors and scholars was investigated and confirmed.

To evaluate the reliability of the questionnaire, first a sample containing 60 pre-test questionnaires were prepared. Then, the reliability level was calculated using Cronbach's alpha by SPSS and data obtained from these questionnaires. Finally, the Cronbach's alpha has been calculated for each parameter in 60 questionnaires using SPSS 23 (table 1, 2, and 3).

Table 1. Cronbach's alpha coefficient for each parameter studied and the questionnaire

No.	Concept	Number of items	Cronbach's alpha coefficient value
1	Brand loyalty	5	0.835
2	Brand awareness	8	0.853
3	Perceived quality of brand	9	0.931
4	Brand association	10	0.930
5	Total questions	32	0.969

To analyze data, SPSS 23 was used. Kolmogorov-Smirnov test was applied to investigate data distribution (table 2).

Table 2. Results of Kolmogorov-Smirnov test

Hypothesis	BEM	Loyalty	Quality	Association	Awareness
Test statistic	0.046	0.095	0.058	0.091	0.086
Sig	0.200 <sup>c,d</sup>	0.007 <sup>c</sup>	0.200 <sup>c,d</sup>	0.11 <sup>c</sup>	0.22 <sup>c</sup>
$\alpha$	0.05	0.05	0.05	0.05	0.05
N	128	128	128	128	128
Result	Normal	Un Normal	Normal	Un Normal	Un Normal

### 3.1 Investigating the effect of variables using binomial test

To investigate the effect of independent variables on the dependent variable, binomial test was used. In this part, the effect of variables is investigated in relation with each hypothesis (table 3).

### 3.2 Main hypothesis

#### First hypothesis:

1. Mellat Bank's brand equity has the most effect on creating value for customers among other Banks investigated in this research.

**H0:** Mellat Bank's brand equity has no effect on creating value for customers.

**H1:** Mellat Bank's brand equity has effect on creating value for customers.

Table 3. Results obtained from first hypothesis

Hypothesis description	Sample group	Probability tested	Observed probability	Significance level (sig)	result
Mellat Bank's brand equity has effect on creating value for customers.	Group 1 (less than or equal to 4)	0.50	0.80	0.000	Hypothesis H0 is rejected and research hypothesis is confirmed.
	Group 2 (more than 4)		0.20		

Since the significance level (sig) is less than alpha ( $\alpha = 0.05$ ), Mellat Bank's brand equity is effective on creating value for customers.

Results obtained from data analysis related to Sepah and Parsian Banks indicated that brand equity was effective on creating value for customers (table 4).

#### Subsidiary hypotheses

#### Second hypothesis:

Table 4. Results obtained from second hypothesis

Hypothesis description	Sample group	Probability tested	Observed probability	Significance level (sig)	result
Sepah Bank's brand awareness has no effect on creating value for customers.	Group 1 (less than or equal to 4)	0.50	0.85	0.000	Hypothesis H0 is rejected and research hypothesis is confirmed.
	Group 2 (more than 4)		0.15		

Since the significance level (sig) is less than alpha ( $\alpha = 0.05$ ), Sepah Bank's brand awareness is effective on creating value for customers.

Results obtained from data analysis related to Mellat and Parsian Banks indicated that brand awareness was effective on creating value for customers (table 5).

#### Third hypothesis:

2. Sepah Bank's brand awareness has the most effect on creating value for customers among other Banks investigated in this research.

**H0:** Sepah Bank's brand awareness has no effect on creating value for customers.

**H1:** Sepah Bank's brand awareness has effect on creating value for customers.

3. Mellat Bank's perceived quality of brand has the most effect on creating value for customers among other Banks investigated in this research.

**H0:** Mellat Bank's perceived quality of brand has no effect on creating value for customers.

**H1:** Mellat Bank's perceived quality of brand has effect on creating value for customers.

Table 5. Results obtained from third hypothesis

Hypothesis description	Sample group	Probability tested	Observed probability	Significance level (sig)	result
Mellat Bank's perceived quality of brand has no effect on creating value for customers.	Group 1 (less than or equal to 4)	0.50	0.76	0.000	Hypothesis H0 is rejected and research hypothesis is confirmed.
	Group 2 (more than 4)		0.24		

Since the significance level (sig) is less than alpha ( $\alpha = 0.05$ ), Mellat Bank's perceived quality of brand is effective on creating value for customers.

Results obtained from data analysis related to Sepah and Parsian Banks indicated that perceived quality was effective on creating value for customers (table 6).

#### Fourth hypothesis:

Table 6. Results obtained from fourth hypothesis

Hypothesis description	Sample group	Probability tested	Observed probability	Significance level (sig)	result
Mellat Bank's brand loyalty has effect on creating value for customers.	Group 1 (less than or equal to 4)	0.50	0.80	0.000	Hypothesis H0 is rejected and research hypothesis is confirmed.
	Group 2 (more than 4)		0.20		

Since the significance level (sig) is less than alpha ( $\alpha = 0.05$ ), Mellat Bank's brand loyalty is effective on creating value for customers.

Results obtained from data analysis related to Sepah and Parsian Banks indicated that brand loyalty was effective on creating value for customers (table 7).

#### Fifth hypothesis:

Table 7. Results obtained from fifth hypothesis

Hypothesis description	Sample group	Probability tested	Observed probability	Significance level (sig)	result
Parsian Bank's brand association has effect on creating value for customers.	Group 1 (less than or equal to 4)	0.50	0.77	0.000	Hypothesis H0 is rejected and research hypothesis is confirmed.
	Group 2 (more than 4)		0.23		

Since the significance level (sig) is less than alpha ( $\alpha = 0.05$ ), Parsian Bank's brand association is effective on creating value for customers.

Results obtained from data analysis related to Sepah and Mellat Banks indicated that brand association was effective on creating value for customers.

4. Mellat Bank's brand loyalty has the most effect on creating value for customers among other Banks investigated in this research.

**H0:** Mellat Bank's brand loyalty has no effect on creating value for customers.

**H1:** Mellat Bank's brand loyalty has effect on creating value for customers.

5. Parsian Bank's brand association has the most effect on creating value for customers among other Banks investigated in this research.

**H0:** Parsian Bank's brand association has no effect on creating value for customers.

**H1:** Parsian Bank's brand association has effect on creating value for customers.

### 3.3 Prioritizing variables using Shannon Entropy

Shannon Entropy was used to prioritize variables. Variable which has the greatest weight has priority over other variables.

Results obtained from Shannon Entropy related to each parameter of brand equity are shown in the table 8.

Table 8. Prioritizing variables

Parameter of brand equity	Bank	Weight	Priority
Brand awareness	Sepah	0.288866	Mellat
	Parsian	0.330953	Parsian
	Mellat	0.380181	Sepah
Perceived quality of brand	Sepah	0.263989	Mellat
	Parsian	0.335052	Parsian
	Mellat	0.34813	Sepah
Brand association	Sepah	0.195506	Mellat

	Parsian	0.280539	Parsian
	Mellat	0.312246	Sepah
Brand loyalty	Sepah	0.214038	Mellat
	Parsian	0.296397	Parsian
	Mellat	0.34813	Sepah
Brand equity	Sepah	0.242984	Mellat
	Parsian	0.361755	Parsian
	Mellat	0.365871	Sepah

As shown in the table 8, Mellat Bank's parameters of brand equity have the greatest weight and have priority over other variables.

#### 4 Conclusion

The model used in the present study was Aaker's brand equity model. It was used to compare the brand equity of public, private and new privatized banks in branches of Sepah, Parsian and Mellat Banks in Tehran. In this model, brand equity and its parameters as dependent variables are effective on creating value for customers. According to the binomial test, the research results show that brand equity and its parameters are effective on creating value for customers in any kind of public, private and new privatized banks; in all cases, the significance level was 0.0, the probability of error %5 and confidence level % 95 suggesting the effectiveness of all variables. This is based on research model that Aaker's brand equity model also shows the effectiveness of brand equity and its parameters on creating value for customers. According to the Shannon Entropy model, the research results show that brand equity and its parameters have the greatest weight in new privatized banks; therefore, they have priority over other banks. Brand equity and its parameters in private banks are ranked after new privatized banks. Finally, brand equity and its parameters in public banks are placed.

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## IDENTIFYING OCCUPATIONAL COMPETENCIES OF NATIONAL AND INTERNATIONAL TAEKWONDO COACHES OF ISLAMIC REPUBLIC OF IRAN

<sup>a\*</sup>SEYED NEMAT KHALIFEH, <sup>b</sup>HABIB HONARI,  
<sup>c</sup>MOHAMMAD HOSSEIN GHORBANI

<sup>a</sup> *PHD Student Sport Management Sport Science Research Institute of Iran*

<sup>b</sup> *Associate Professor Department of Sports Management, Faculty of Physical Education & Sports Sciences Allameh Tabataba'i University*

<sup>c</sup> *Assistance Professor Sport Science Research Institute of Iran*

Email: <sup>a</sup>khalifeh\_tkd@yahoo.com, <sup>b</sup>honari\_h@yahoo.com,  
<sup>c</sup>ghorbani.moho@gmail.com

**Abstract.** The present study aimed to identify occupational competencies of taekwondo coaches of Iran. The study performed repeatedly using combined qualitative and quantitative exploration methods and in two stages. The samples consisted of managers, experts, coaches and Taekwondo athletes with a sample size of 177 individuals. The survey questionnaire, was the Mansfield questionnaire (1996) and consists of two parts: The first part including coaches' indicators and the second part related to demographics of the community. The results showed that the overall eligibility criteria of Taekwondo instructor's lies in 10 groups are as follows: Techniques and Characteristics of coaching, managerial and leadership competencies, humanity skill, demographics and individual competencies, personality traits and social features.

**Keywords:** professional competence, coaches, Taekwondo

### 1 Introduction

Nowadays human resources is considered as one of the most important factors in advancing and improving the productivity of organizations. Experts believe that human sources in organizations are more effective in the foundation, maintenance and development of performance levels and completing the mission of the organization, and improvement of the quality and productivity relates to human factors involved in the growth and evolution of the organization. Therefore, investments in the areas of talent identification, selection and implementation of appropriate human resources jobs at different levels of the organization, monitoring performance and human resource skills and guidance is essential (Saadat, 2000). Today, as to the success of an organization is directly related to the performance of its employees and staff selection and the development of an organization is identified with the quality and performance of its employees and naturally, coaches and physical education trainers are considered as a functional group of employees (Automotive Industry, 1983). There is no doubt that the selection of the entitled person for an organizational position is very difficult. In some jobs the working relationship is such that individuals only requires a limited set of qualifications in order to hold the job. In some jobs the individual knowledge and experience is of great importance while in others the work experience and qualifications are more important and in some other jobs the behavioral traits and personality is more important. However, we need a selection criteria to choose a right one for a job. These criteria can be of different degrees of significance or importance, or having the same degree. As there are different criteria in the assessment of any individuals, so specific criteria should be considered for selecting a person. In this regard, it is difficult to select coaches in sports. A coach must go through several features including knowledge and expertise, experience and coaching experience, great personality, good communication skills and motivational (Seyed Javadein, 2002). There is no consensus on the definition of merit, but according to its definition, it seems as an umbrella that covers anything which directly or indirectly have an impact on job performance. In the other words, competency shows a picture of a grown individual with required qualifications for doing a job. In fact, competency has a systematic approach to employees' which includes all those traits, characteristics, skills and attitudes related to effectiveness in carrying out the duties and responsibilities (Morgeson et al., 2009). There are different

models for competency, in which some emphasize on the general abilities and the quality of human resources, while the other models emphasize on the technical skills of human resources. Mansfield in 1996 in an article entitled 'preparation of competency models', in the Journal of Human Resource Management expressed their views in the form of the two categories (Newsom et al., 2004). Goleman and Buyatzis (2002) classify competencies in two categories, individual competencies and social competencies (Vaikramasing and Zaviza, 2008). Determination of managerial competencies and effective leadership in the British Royal Navy with four "Competency Cloud" under the heading of competencies perception, aligning, interactive and successful entrepreneur with a solid base (Young and Doloyk, 2009). After the flourishing of several studies on the human resource competencies by Ulrich and colleagues and offering multiple models in this field in 2007, the research group continued on focusing on the importance of competencies related to individual and organizational performance and proposed a dynamic model in the human resource departments in which coaches are expected to play the roles of each of the six domains of competency including, pragmatic, credible, culture and change agent, talent manager/designer of organization, architects of strategic and allied business and operational execution (Ulrich et al., 2008). Goudarzi and Farahani (2003) argue, it would be so desirable if designer provide evaluation criteria to determine the success of program and select the suitable plan after implementation of the first evaluation. For example Shafiee (2007) stated that in order to choose a coach, we cannot only rely to staff selection criteria apply in administrative posts, as the factors leading to the success and effectiveness of a coach and in turn the success of a country's national team is far beyond this criteria. A successful coach should have some unique features. These characteristics can be considered in personality, interpersonal, technical and social knowledge management fields. Selection of coach is a difficult and controversial work in sports. A coach must have several attributes including knowledge, experience, coaching experience, great personality, good communication skills and motivation. Henry et al in their research entitled "ranking of selection criteria of Iranian National Football Team" showed that there is a significant different between the coach selection criteria in four characteristics of, personality, technical, humanity-emotional and managerial. According to the obtained results and based on the ranking of each of the indices the proposed frameworks can be considered as a rules for selection of suitable coach for the Iranian National football team in different age groups. Martens (2004) identifies 15 feature some for choosing of coach which include: knowledge of sports coaching, sports science knowledge, motivation and skills of communication and motivation, evaluation of their own work as well as athletes, organize and plan and evaluation. But, some organizations have several standards for coaches, for example, the National Standards for Physical Education and Sport Sciences coaches from the perspective of the National Association of United States (NASPE) (2009) include: coaching philosophy and ethics, safety and injury prevention, physical condition, growth and development, teaching and social interaction, sports skills and tactics, organization and management. There is no framework and rule for choosing a coach in Iran which has led the concerned authorities have no convincing answer for disqualification and evaluate factors of coach selection (Nasiri, 2008). Koenigsfeld et al (2012) designed a model for competency of private club managers. They investigated 58 index in 10 dimension through exploratory and. The results of confirmatory analysis verified 51 indices in 10 dimensions of competency including , golf, maintenance of facilities, human resources, leadership, interpersonal, beverages and food, public affairs, sports and recreation centers, accounting, marketing and strategic management. Shamsudin and Chutipattana (2012) also investigated determinants factors of managerial competencies in a group of Thai primary care managers aiming to identify the most important managerial

competencies and the relationship between motivation and personality. The obtained results identified six key competencies, including leadership, management, diagnosis, planning and evaluation, health promotion and disease prevention, information management, collaboration and communication. Also, both the character and motivation had an impact on managerial competencies. Santos (2010) in a study entitled "The coaches' perceptions of their professional competencies" collected the results of the self-assessment of 343 coaches. Competencies related to annual programming (3.58), Competencies of recognition of the training and competition situation (4.07) and personal training and coaching competencies (3.69) were as the three general competencies review in this study. The National Association of Physical Education and Sport Sciences of the United States (2012) on a instructions of coach qualifications indicates the importance of coaches such that: coaches have a profound impact on our youth. Thus, high expectations are set for them from public. So if they get money or simply be a volunteer, they are responsible in the performance of professional coaching principles. There is no doubt that the process of selecting people for different jobs is closely related to the effectiveness and productivity of the organization. To select a particular position, having a series of features associated with the job is essential in volunteers. If the heads of organization have required criteria for the selection of personnel in obtaining a particular post they can use these pre-determined criteria to select people (Saadat, 2000) which is tangible in today's environment and organizations in such a way that the environment is faced with continuous changes And business managers are faced with globalization, rapid technological change and competition based on merit their and need to acquire competencies appropriate to the new situation (Vitala, 2005). Managers also can lead to valuable successes and for their organization. They have an important role toward the excellence of the organization with their strategic planning, resource allocation, organizing employees, leadership, management, evaluation and control of performance, (Armstrong, 2008). Designing competency model, is among the methods which has been created for continuous adaptation of modern organizations with the changeable working environment. On the other hand if we investigate system of human resource of organizations it is obvious that in most cases there is no relation and continuity between its different sub systems such as education, evaluation of performance and ... which lead to failure of human resources. One of the best and most appropriate approaches to achieve coherence between the processes, is to involve the competency approach in human resource management. The competency model can be applied to human resources as a way to integrate the different measures. It can be said that in this approach, competency is the core of all human resources activities. In National Sports Team where representatives of a country participate in international competitions coaches are considered as a key factor in the success of the national team. We have always seen that coaches have changed the status of a team and have replaced defeat with victory have or vice versa with their decision, which shows the importance of the selection of a competence coach for sport teams. Because coaches, are the managers who utilize a same science and the art of management in leading a team and tries hard for a long period for success and because he benefits all his power and expertise to maximize the students physical and mental capacities, it seems that he requires to be experienced in different fields of technical, expertise, mentality, humanity and sociality and have to use all his power to serve his sport organization. The researcher aims to grade the level of importance of these indices based on the previous studies and the obtaining the comments of specialists and finally codify the required indices for the selection of the national and international coaches of these research. These problem lead to

arise question that what has led to selecting a coach, thus it is essential to have an index for coach selection. All of the above mentioned specify the importance of having competencies for the coach and managers and it is essential to have such a nationally important major in universities and research centers and it should be considered for taekwondo. In these research we aim to collect the job competencies of taekwondo coach through the available literature and ranking each of the indices. Considering all of the above articles researcher aims to find the answer of this question: What is the required criteria for the male and female taekwondo coaches? And what pattern can be proposed for this purpose?

## 2 Research methodology

The study was performed in a combined qualitative and quantitative exploration in two phases successively. In this research job competency training method was used for designing local qualitative-quantitative. Thus, a group consisting of professionals and experts and certified trainers were employed for design of the model. In the qualitative section the study population included all sports management professors, coaches with national history, champions and senior managers of the Federation. In the quantitative section the size of this study was a total of 177 people, including: groups of specialists and experts in research, team coaches working in the Premier League and National team, team managers and active players. The survey questionnaire, was the Mansfield questionnaire (1996) and consists of two parts: The first part was the indices of the Iranian Taekwondo coaches' indices and second part was related to demographics of the community. The questions of the questionnaire was obtained through the available literature and discussion session with the experts of the field including the technical group (the active coach of national and premier league club teams) and managers (including Taekwondo Federation technical committee, all the members of the Technical Committee of the Federation, provincial authorities, staff and administrators of the taekwondo premier league teams) as well as reading books and scientific articles and internet. A preliminary questionnaire, was given to the sport specialist to determine the validity of the content and finally the research questionnaire was developed and distributed between samples. Delphi survey method was used for the validity of the contents of the questionnaire. The questionnaire was distributed among 20 qualified professionals. The participants were asked to express their idea about the contents as well as on the writing and the possible errors. After gathering data both the inferential and descriptive statistics were used to analyze the data. To analyze the information, descriptive statistics such as tables, charts, indices such as mean and standard deviation of the distribution center including standard deviation were used. In the inferential statistics confirmatory factor analysis and exploration, Kolmogorov Smirnov test for normality of data distribution and AMOS software for the modeling of structural equation was used.

## 3 Research findings

Table 1 presents descriptive findings on the demographic characteristics of the samples. According to the results, 60 percent of samples participated in this study are Taekwondo coaches, 20 percent are athletes, 10 percent are managers and 11% are specialists and experts in the field of coaching and taekwondo. According to the results of the research study, 30% of the samples were women and 70 percent were male. The results also showed that most respondents i.e. 45 had a bachelor's degree.

Table 1. Descriptive data on the demographic characteristics of the samples of the research

Samples of the Research	Frequency		% Frequency
Athlete	35	20	
Coach	106	60	
Manager	17	10	
Specialists	19	11	

Gender	Female	53	30
	Male	124	70
Education	Diploma and lower	40	23
	B.Sc.	80	45
	M.Sc. and higher	57	32

Either of the research instrument has designed to measure a particular variable which is known as the goal or structure variable. In relation to the types of validity, construct validity indicate that how the measuring utility measures a construct. Based on the assumptions, the researcher investigated the construct validity. Results showed that due to the nature of the confirmatory of the study, the internal consistency of the factors that were higher than 3.0, are selected as appropriate factors for variable competency indices of the national Taekwondo coaches. The results of factor analysis showed that all the parameters related to the competence of the National Taekwondo coaches, have an acceptable t values and are appropriate indices to be used to measure these variables. In this study, exploratory factor analysis was also used to identify the competencies of the national Taekwondo coaches. Thus before the factor analysis, in order to ensure adequate sample size, Kaiser- Meyer-Oklin measure of sampling adequacy (KMO) and for correlation of the variables Bartlett' Test of Sphericity were used respectively. According to the findings of the test the value of KMO was obtained as 0.894. This value ensures that the number of samples is adequate for factor analysis and performing the factor analysis is applicable for such a data and data can be reduced to a series of hidden factors. The results of Bartlett test (Sig=0.001,  $\chi^2 = 14505.229$ ) shows a strong correlation between the variables, thus continuing and using of the other stage of factor analysis is

permissible. It was also observed that the variance of the variables are all greater than 0.5. So all the variables will remain in the analysis. The results of Eigen values, the percentage of variance and the cumulative percent of variance explained by each factor were obtained from the data set.

According to the Kaiser, only the factors with an Eigen value greater than 1 are selected and other factors are neglected. Thus according to the research it was found that the 100 variable of the research can be reduced to 10 variable and a new structure can be developed using the new factors. In the initial Eigen value analysis it was found that the share of either of the factors the contribution of each factor in explaining the variance of 100 variables related to the merits of different national coaches for Taekwondo is bearish. According to the variance of the data it was observed that the first factor has the largest share, 39.716, and the share of first to tenth factors are 4.776, 4.616, 3.446, 2.665, 2.464, 2.057, 1.894, 1.823 and 1.703 respectively. Cumulative variance of the 10 identified factor with an Eigen value greater than 1 explain 65.08 percent of 100 variables of coach selection competency. Based on the results of exploratory factor analysis and extraction of 10 factors in the questionnaire, the questions corresponding to the extracted factors are as follows:

Table 2. Description of the variables of the first factor (managerial and technical characteristics)

variable	Variable	Load Factor
Q8	The ability to control their players and psychological domination	0.606
Q24	Specialized ability to lead the team in the tournament and being successful	0.59
Q30	The ability to de-stress relaxation and relieve anxiety in athletes	0.536
Q31	Prevention and elimination of overtraining and plateaus run at athletes	0.629
Q38	Ability to motivate athletes in competitions	0.661
Q57	Knowledge of international laws and regulations of the competitions	0.637
Q58	Reading of the game and identify the strengths and weaknesses of their opponents and their own athletes	0.655
Q96	The ability to generate interest, enthusiasm in the athletes to learn and participate in exercises	0.748
Q97	The ability to reconstruct the physical and mental ability of the athletes after the race	0.567
Q98	The ability to use the most effective management practices for leadership of the athletes	0.829

According to the finding of the research 10 variables out of 100 variables lies in the first factor, (Table 6) and because most of the variables are related to skill of the coach in educating athletes and his ability during exercise and competition and after

competition and because the motivations and psychological issues of the athletes are examined, it is entitled as "coaching and technical competence". Each of the loadings factor of the variables have been reported in Table 2.

Table 3. Description of the variables of the second factor (managerial and technical characteristics)

variable	Variable	Load Factor
Q10	appropriate incentive to encourage and motivate athletes to progress	0.557
Q25	Consult with residents and coach assistant	0.544
Q32	The ability to promote the spirit of tolerance in defeat and victory	0.538
Q37	The ability to evaluate opponents	0.527
Q59	The ability to evaluate his own work and that of the athletes at the end of each practice session or race and fixing the problems	0.725
Q60	The ability to evaluate his own work and that of the athletes at the end of each season	0.644
Q61	Consultation with the players in the training, racing, nutrition and ...	0.644
Q88	Hold review meetings with the athletes	0.61
Q89	Creating discipline during workout	0.715
Q90	Explaining the duties of athletic	0.703
Q100	appropriate usage of feedback to improve players' mistakes	0.625

Based on the results it was found that 11 variables lie in the 2nd factor and as these are mostly related to the managing characteristics of the coach to self-evaluation and assessment of

the athletes it is referred to as "leadership competencies" (table 3).

Table 4. Description of the variables of the 3rd factor (Programing competencies)

variable	Variable	Load Factor
Q 33	Documenting the activities and experiences of coaching	0.549
Q34	The ability to make short-termed plan	0.657
Q35	The ability to make medium-term plan	0.589
Q36	The ability to develop long-term plan	0.538
Q62	The ability to create perspective for athletes and team	0.598
Q63	Trying to achieve team goals	0.527
Q64	The ability to control and direct supervision of the implementation of the tasks of the athletes	0.586
Q65	The ability to schedule match and prepare logistics for athletes	0.658
Q99	Ability to apply precise timing of the implementation of training programs	0.741

The results of this analysis indicated that the nine variables from 100 variables in this study were in the third factor (Table 4). As the variables of this factor is mostly related to the ability of the

coach to organize short term, medium term and long term program for the team, it is named as "planning competencies".

Table 5. Description of the variables of the 4th factor (scientific, technical and educational competencies)

variable	Variable	Load Factor
Q22	Understanding and mastering the techniques of taekwondo training	0.511
Q23	Organizing theorist classes	0.513
Q29	The ability to implement their theoretical knowledge in practice	0.502
Q39	The ability to analyze Taekwondo techniques in coaching	0.615
Q53	Knowledge of introductory sport sciences such as pathology, first aid, nutrition and....	0.518
Q54	The ability to design and implement training programs tailored to the characteristics of athletes	0.670
Q55	The ability to use teaching aids and computer technology, video and ...	0.540
Q56	Utilization of IT for Sports Studies	0.677
Q66	Ability to analyze players and resolving technical faults	0.629
Q67	Help to create a mental focus on athletes in training and competition	0.604
Q68	Membership of the technical community inside and outside the country	0.594
Q86	Trying to learn new scientific knowledge and Taekwondo techniques	0.726
Q87	provide an environment to encourage athletes to ask freely and without intimidation and fear	0.661

As can be seen in Table 5, 13 variables out of 100 variables lies in the fourth factor. As the variables of this factor are mostly related to familiarity of the coach with the techniques and

tactics, exercise method and the ability of the coach to utilize novel method, it is named as "scientific, technical and educational competencies.

Table 6. Description of the variables of the 5<sup>th</sup> factor (Sport history and record)

variable	Variable	Load Factor
Q5	Record on national team	0.690
Q7	History of education and the introduction of talent athletes to national teams	0.662
Q16	History and place as the veteran coach	0.536
Q46	Teaching coaching classes	0.692
Q77	membership record of provincial teams and club	0.592
Q78	History of education and the introduction of talent athletes to national teams	0.560
Q79	having Degrees of coaching	0.549

Based on the results, it was found that 7 variables are in fifth factor (Table 6). Most of these variable are related to sport history of the coach so it is named the "sport history".

Table 7. Description of the variables of the 6<sup>th</sup> factor (Humanistic skills)

variable	Variable	Load Factor
Q19	Effective verbal communication with athletes	0.518
Q20	Effective listening to the athletes Comments	0.548
Q27	Language and communication difficulties between foreign coach emotional difficulty with athletes	0.579
Q28	Positive thinking and attention to positive features of the athletes	0.515
Q69	Ability to mentally Administrate athletes	0.734
Q70	The ability to gain the respect and confidence of athletes and partners	0.659
Q71	The ability to motivate athletes	0.725
Q80	Close and friendly communication skills with players and partners	0.589
Q94	Nonverbal Ability to communicate effectively with athletes	0.654

According to the study, it was found that 9 variables are placed in the sixth factor and its constituent indices refers to the friendly

behaviors of the coach with athletes and other coaches which is named as "human skills" is named (Table 7).

Table 8. Description of the variables of the 7th factor (personal characteristics)

variable	Variable	Load Factor
Q1	Age trainer	0.505
Q2	Iranian coach	0.556
Q3	Foreign coach	0.702
Q4	direct verbal communication with of the Foreign coach with athletes	0.689
Q44	Level of Education	0.700
Q45	education in physical education and physical education	0.509
Q81	Physical fitness and the ability to view exercise techniques for athletes	0.598
Q82	Fluency or familiarity with a foreign language	0.521
Q83	Rhetoric and oratory	0.523
Q91	Physical characteristics and appearance	0.658
Q92	Shrewdness and acumen in coaching	0.578

The findings showed that 11 variables are in seventh factor. Their constituent indices refer to variables such as age, nationality of the coach, coach field of study, coach appearance ,

etc., has been named as "demographic and personal characteristics" (see Table 8).

Table 9. Description of the variables of the 8th factor (Moral Characteristics and competencies)

variable	Variable	Load Factor
Q12	The ability to gain the trust of the athletes as a faithful and trusted	0.531
Q13	Love to athletes	0.594
Q14	Compliance with laws and regulations of the game	0.534
Q18	Avoid pride, arrogance and megalomania	0.567
Q26	Justice and fairness and avoid discrimination among athletes	0.519
Q47	secrecy and confidentiality for the athletes	0.702
Q48	The ability to solve problems and problems of athletes	0.579
Q49	Dominate the nerves and control his actions when conductivity athletes in competitions	0.705
Q72	Avoid pride, arrogance, egotistical and self-indulgence	0.577
Q73	Courtesy and respect, and refrain from insults and ridicule to others	0.689
Q74	Working in a spirit of sportsmanship and fair play	0.661

Based on the results 11 variables were in the factor 8. The variables of this factor refer to coach statements such as politeness, integrity and confidentiality and the ethical issues

related to the coach, so it is named as "moral characteristics" (Table 9).

Table 10. Description of the variables of the 9th factor (Characteristics)

variable	Variable	Load Factor
Q6	Self Confidence	0.658
Q9	Decisiveness and consistency in decision-making	0.557
Q11	Love of coaching career	0.585

Q15	Criticism towards colleagues and athletes	0.586
Q17	Ingenuity in the way of training, guidance and coaching	0.563
Q40	Having self-esteem, dignity and self-respect	0.595
Q41	having humility	0.531
Q42	Have patience	0.569
Q43	The ability of maintaining composure during training and competition	0.534
Q75	Hard work, effort and perseverance	0.660
Q76	Have the spirit of achievement, challenge and victory	0.524
Q84	Honesty in word and deed	0.642
Q85	Humor and openness	0.554
Q93	Commitment and sense of responsibility for players, teams and countries...	0.549

Based on the results of study 14 variables was in 9th factor. The study shows the variables of the statements refers to the

character of a coach, so it is named as "personality characteristics" (Table 10).

Table 11. Description of the variables of 10th factor (social characteristics)

variable	variable	factor
Q21	Having social acceptance and popularity of the truth	0.539
Q50	Respect the culture, customs and religious and social affairs of the athletes	0.767
Q51	Skills to communicate constructively with the media, team staff and higher officials	0.619
Q52	Cultural differences of the coaches and their impact on athletes	0.651
Q95	respect towards senior executives and athletes, referees and opponent	0.706

Finally, as it can be seen in Table 11, 10, 5 variables out of 100 variables lies in the 10th factor. According to the variables of this factor, the concepts of these variables are related to work behavior, communication skills, answering to sport community and media, respectful behavior of coach with managers, referees and opponents, so it is named as "social characteristics".

#### 4. Conclusion

There is no doubt that the role of the coach is an undeniable in the success of sports teams. Coaches are considered as one of the main members of sports federations which have a significant effect on the performance of the organization and the failure or success of the organization strategy is directly related to the success or failure of the national team (Martens, 2004). The conventional methods of selecting employees in an organization cannot be extended for coach selection as the factors beyond the success and effectiveness of a coach is beyond these factors. A successful coach must have unique characteristics. These characteristics can be considered in areas of personal, interpersonal, managerial, technical knowledge and expertise, social, etc. of the coach. Thus the lack any of the features can cause failure of the coach to get optimal results (Shafiee, 2006). The present study aimed to develop a competency model of the national and international taekwondo coaches of Islamic Republic of Iran. The results showed that coaching characteristics and technics of taekwondo coaches are among the competencies of the coach and this results are in line with that of Kohandel (2000). Understanding and mastering the skills required in a sports activity, especially activities that involve practices, processes, procedures and techniques are called technical skills. Technical Skills of the coaches includes mastering of the coach in the related techniques of the sport field. In addition some examples of the general and technical skills in the field of coaching that should to be considered include: setting goals, plans, integrated training and the ability to detect and correct technical mistakes players (Dabaghian, 1996). Technical skills for a taekwondo coach can be reconstruct the athletes after the race and so on, Such as the ability to control their players and psychological mastery, Specialized ability to lead the team in the tournament and to win, The ability of relaxation and de-stress and relieve anxiety in athletes, Prevention and elimination of overtraining and plateaus run at

athletes, The ability to motivate athletes in the tournament, Physical and mental ability to reconstruct the athletes after the race. Coaching skills are process which is used to direct the sports program toward the specified goals. The first task of the coach is to lead the athletes. Responsibility of the coach mandates maintaining effective communication with officials, athletes and coaches. In the area of leadership coaching duties are: to motivate athletic, good relations with them, make necessary changes and investigation of inconsistencies. The use of different practices led by coach depends on the fitness of athletes. The familiarity of the coach with leadership styles and method and utilizing the best leadership method is an important factor in the success of the coach and a constructive relation with the athletes (Hersi and Blanchard 2004). The results also showed that the ability of the coach to design and writing of a short-term, medium-term and long-term plan for the team is among the competencies of the coach which has be entitled "Planning competence or ability to plan". The results of this research is consistent with the results Santos (2010). In fact, when the coach wants to adjust the programs he requires planning table for increasing annual training sessions, to determine seasonal goals, planning for travel and sports, and the like. Through the plan, he can predict what actions should be taken, who and how the action must be done. Planning means setting goals and making decisions about what order or what the outcome of these goals are met. Planning is one of the most valuable factors for successful of the coaches (Dabaghian, 1996). Humanity skills of the coaches are another competency skill identified in this research and the results of the present study is in line with that of Kohandel (2000). Humanistic behavior with the athletes is among the core success factor of the coaches. Basically, there are two types of behavior in organizational relations. First one is the humanistic behavior comprised of building a relationship with people on an individual basis according to the needs, interests and feelings. In this method the coach does not considers his followers as mean to reach his own goals. The second one is responsibility based behavior, including making relation with individuals based on responsibility and works, in this method the coach just guide his followers to perform their own task correctly and there is a poor humanistic relationship between the coach and the members, and implementing the assigned task are the main factor to reach the organizational goal (Hersey and Blanchard, 2004). The results also indicated that

social characteristics of the coaches are among the competency factor, the results is consistent with the research of Shafi'i (2006), Myers et al., (2011). Coach someone through systematic application of a series of activities, talents, physical, motor, intellectual, social and moral existence of learners and learners will flourish; therefore innate human abilities and forces reinforced by coach and favorable for the development. Coach is an individual which glorify its follower physical, movement, social and talents of his trainee through organized program. However, the person in charge of the above mentioned issues, is the coach. A coach is more involved with problems in group activities, because in addition to guide individuals and improve their performance, he has to coordinate among all members and the guidance and coordination is necessary for the prosperity and success of the coach. In addition to the above, coach also deals with emotional and social problems of the athletes. The ability to motivate athletes to improve the performance and success of the tournament is as an important skill in coaching. Motivation is an internal force which guide the individual to his goal. The results showed that personality of the coaches are also among the competencies in managers. The results of this research is in line with the results Kohandel (2000), Tabrizi (2001), Shafi'i (2006). Grover (1992) considers the characteristics of a coach in practice, including giving feedback, encouragement, reward, problems solving, and challenges and develop performance. He believes that a coach should be able to use his skills in the above areas, to help the team succeed and also suggests that successful coaching depends on the development strategy, the use of personal evaluation, training, feedback and preparation of the coach. He has designed a model for modeling success of the coach and in this model defines three basic concepts, which include: coach reaction, training and educational results and outcomes (Grover, 1992). People who are motivated by intrinsic, have internal ferment and competence and a specific decision to carry out tasks with skill on the path to success. Characteristics of competence, self-determination, skill and success are the targets of individuals who are motivated from inside. Athletes participating in sports competitions is have a love match which is based on an internal motivation. Coaches should encourage this kind of motivation in athletes (Khabiri, 1994). The results showed that the track record of the coach can be considered as a competency factor this part of the research is in line with the results of Kohandel (2000), Tabrizi (2001), Shafi'i (2006), Myers et al., (2011). The previous record of participating in national teams, teaching in coaching classes makes them to be experienced which provide them with the required competency. The results also showed that competencies and moral qualities of taekwondo coaches underlying competency of Taekwondo coach and the results is in line with the results of Nasiri (2008). ASCTA Forum (1998) describes the characteristics of a coach in the eyes of the athletes as: consistency, ability to tolerate criticism and crisis, positive, polite, belief in their work, be optimistic, being a good listener and advice to and tight-lipped, being humble, committed, self-esteem, courage to re-do work .... So these characteristics can make the coach be successful in the field of coaching. Yousefi et al in a research entitled "evaluation of the role of coach in spreading sport behavior from the eye of national teams of the country" have positive effect on spreading sport behavior while they had negative effect in sport commitment, social responsibilities and refusal of win oriented thoughts, and this difference was significant. The results showed that the scientific, technical and educational characteristics of the coach is among the competencies of the Taekwondo coaches. The results is in line with the results of Kohandel (2000), Tabrizi (2001), Larson (1990), Mayer (2006), Santos (2010). Jefferie and Stephen (1992) refer to the required skills that are essential for a coach, and point out this skills as a power for succeed of the coach. One of the most important skills, technical skills, these skills include methods, processes, procedures and techniques of a coach to succeed in his work. The goals of the coach in technical skills includes: Procurement of equipment for the implementation of a training session, assessment of conducted exercises and competitions, the development team's goals and philosophy, Organizing and participating in competitions. As well as the ability to recognize how different functions of coaching communicate with each other and how

changes in one aspect of coaching can affect other aspects, called perceptual skills. Concrete examples of these skills, the ability to understand the interaction of various aspects of psycho-physiological fitness to create a sports movement. Thus mental training should be included in the sports program (Dabaghian, 1996). The results showed that individual demographic characteristics and other factors can also (2000), Shqyy (2006), Nasir (1997). Direct verbal communication of the coach with athletes, level of education, education in physical training and other fields, physical fitness and the ability to perform sport tactics, proficiency in a foreign language, physical characteristics and appearance and being keen in coaching is among the personal characteristics. Finally because of the importance of the coach selection and the effect of an appropriate selection of the coach on the success of the national taekwondo team internationally, having a suitable indices for selecting coach in different level will help the authorities to find the best one for this position.

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## DEVELOPMENT AND GLOBAL ARCHITECTURE OF EDUCATION

“HESAM PESIANZADEH

*“Oslo University College*

*Email: “Hesampesian@gmail.com*

Abstract. Globalization is one of the contemporary events that have affected many different aspects of life. Although globalization has many positive aspects, its negative aspects also affect the living conditions of human beings. This impact has challenged the sub-identities of social cultures in different communities. From this point of view, social development of the societies is also one of the most complex concepts in the humanities. This concept becomes more complicated when some societies are trying to develop other societies by transition of serious of thoughts and manners which has no suitability with the culture of targeted societies.

Globalization has led the global architecture of education to be considered as a tool for socio-cultural development of underdeveloped societies. This tool is used for transferring the dominant culture which is not only different but contradictory in terms of social, cultural, and historical aspects with the culture of many other societies. Furthermore, many international organizations and executors trying to make positive changes in different societies are facing with such challenges mentioned above because their thoughts are based on western epistemology discourse. This paper briefly has tried to study the theoretical and practical support of global architecture of education and show the challenges of these international organizations. In order to clarify this issue, two countries such as South African as a country affected by socio-educational changes by international organizations and Cuba as a country whose education system is based on historical and cultural values of Cuban society has been analyzed.

Key words: Globalization, developments, educational development, Global architecture of education.

### 1 Introduction

Educational development in a global world is one of the complicated contemporary concepts today. In one sense to have “education” is a fundamental right for human beings and is essential to have development in society. However at the same time, education for who and for what is a very important question. “Development” itself also is a very contestable concept because in post-colonial countries some people see development as a new tool to colonize their mind and use the society’s resource as their previous historical experience was. Another concept that is very complicated is “Globalization” which has a positive and negative side to it. Global organizations are practical side of globalization that have advantage and disadvantage role over the many years in world.

However, it is important to understand relationship between education and development in an African context in order to understand the positive and negative role a global organization may have in developing their life condition.

The first part of the article will discuss education and development as concepts. Secondly the article will continue by discussing global architecture of education and the role of global organizations like the World Bank and UNESCO in an African context. To have more practical discussion both in terms of broader socio-historical and cultural relations in development, South Africa and Cuba will be looked at.

### 2 Education and development

In the first part of the article, the writer will try to examine the relation between education and development at a global level. To put light on this, the article will try to use Serpell (1993) as a theoretical framework to understand education in a developmental sense.

According to Serpell (1993), the economic, cultural and pedagogic agendas of schooling, seek to promote ‘economic progress, transmission of culture from one generation to the next, and intellectual and moral development’ (Serpell, 1993, p. 1). Serpell is trying to explain how those three agendas have an important role in educational policy around the world. Earlier,

the schools’ role was to transfer culture from generation to generation, however, much attention has turned to economic and pedagogic role of the school (A. Breidlid, 2003; Hoppers, 2002; Serpell, 1993; Tucker, 1999). Therefore, nowadays education is seen more as an economic, cultural and pedagogic agenda system to reach development in societies.

As Fagerlind and Saha (1989) mentions: “There have been few concepts in social and economic thought which have been as ambiguous as that of development the terms has been used in a variety of contexts, often clouded with political and ideological overtones” (p.4). In addition, Holmarsdottir (2006) explains there is two differing conceptions of development “development conceived of as increased prosperity, measured in terms of economic growth”, which is a neo-liberal assumption. Secondly, development is to meet human needs, which enables the potential of human personality to be realized (p.2). The dominant view to development is to see countries develop based on the “economic-growth paradigm”. Though there are disputes over this, still the dominate perspective categorizes countries into “First world” and “third world”, the first world referring to industrial western countries and the third world applying to countries where the economy growth is not high and they are usually located in the global south.

Therefore, it is very clear that the dominant understanding of development is the neo-liberal perspective of development (Hon, 2002, Holmarsdottir, 2006) that plays a crucial role in educational policy at a global level. Further, the discussion now turns to the background of development theory in order to show how it has affected educational policy.

According to Fagerlind and Saha (1989), “Ideas and concepts do not occur in a vacuum but are products of the social, cultural and historical events surrounding them. Such has been the case in the thinking about development” (1989, p.5). So after World War II, the European people experienced horrible times and thus, different development theories emerged. One of the theories that effected education was human capital theory that “postulates the most efficient path to the national development of any society lies in the improvement of its population that is its human capital” (Fagerlind & Saha, 1989, p.18). Furthermore, human capital theory was developed by economist as a reaction to other theories that were developed by sociologists and named it modernization theory (ibid.).

Modernization theory is a “intellectual responses to the World War two” (Fagerlind& Saha, 1989, p.15). In modernization theory, modern values like achievement motive which is seen by McClelland as essential to have open societies, which in turn provides economic and technological advancement which is necessary to have modern and civilized societies (Fagerlind &Saha, 1989). For modernization theory, education is directly related to the acquisition of modern values to reach economic development. Likewise, for human capital theory education is viewed as productive investment, as Schutz (1961) states: that “educated population provides the type of labor force necessary for industrial development and economic growth” (Fagerlind& Saha, 1989, p.19).

It can be argued that these two perspectives are linked to the global architecture of education. I think as Fagerlind and Saha mention “As with modernization theory, human capital theory provided a basic justification for large public expenditure on education both in developed and developing nations” (1989, p.18). Furthermore, this view helped global organizations to enforce a Western epistemology on to countries with a different social-historical context. Hence, they are affecting their cultures and values. Now the article will explore the nature of global architecture of education. In addition, it will discuss the World Bank as one of the oldest global organizations that is involved with education.

### 3 Globalization

As Levin Institute (2011) point out:

“Globalization has become the new buzzword and is often defined as a process of interaction and integration among the people, companies and government of different nations, a process driven by international trade and investment and aided information technology” (Sited in Breidlid, 2013; p.16). Hence, globalization is one of the difficult concepts to define, but there is some common understanding of it. As Held (1999) mention “Globalization as the widening, deepening and speeding up of world-wide interconnectedness in all aspect of contemporary social life, from the cultural to the criminal, the financial to the spiritual” ( Crossley& Watson,2006; p.53). In addition, as Wallerstein points out, there are two sets of globalization, old and new one. With the old one we refer to colonization and capitalism that began 500 years ago. So for some societies, “globalization” is the continuing of modernization and westernization of other cultures. As Chakrabarty (1992) point out: “Modernity is something exclusively invented in isolation in North-western Europe, but has been assimilated, incorporated, molded, and universalized to fit European colonial expansion” (Breidlid, 2013, p.16). Hence, some people see globalization as new a version of colonization which has changed face in the later years. For them global architecture of education is the main tool that western is using to colonize their mind and ignore their cultural value.

Globalization has also some advantages as H.S Bhola (2003) states optimistically: “Brought about its dialectical opposite; the desire for localization, the search for community, indigenous values, mother tongues; and the wish to search preserve cultural heritage, and indigenous knowledge” (sited in Breidlid, 2013; p.16).It can be argued that, we should see social phenomena form two angles before judging. For example, globalization has opened many doors to spread information between people which can provide more understanding about each other and can bring more peace to our world.

### 4. Global Architecture of Education: Historically and in context

Global architecture of education is part of complex a process that emerged with “Globalization”. As Jones (2007) points out “A complex web of ideas, networks of influence, policy framework and practice, financial arrangements and organizational structure (2007; p.325).

It is important to discuss the global architecture of education because it plays a homogenizing role in many countries with different social and cultural contexts “The global architecture of education or the global educational discourse has had and still has, enormous consequences for how the school systems function in various parts of the world” (Breidlid, 2013; p.54).Furthermore, it is essential to understand the historical background of that concept to fully comprehend the effects of it today.

Since Enlightenment, to have modern values and modern society became the main discourse in Western European. A main feature of modernity is the idea that everything from the western world is scientific and logic. Any culture that does not fit into sciences is unscientific. This view has led western society to take their assumptions as universal and led them to spread it to other regions. In global architecture of education “The view that education should be a part of the market is normalizing which results in governments taking less responsibility for the education sector in their country, leaving it to the private sector (Jones, 2006; p.59).

Likewise, modernity and westernization with privatization of education that was background for globalization led western

societies to understand their education as “right” education system that can be fit with other context. Consequently, “Transferring of education” emerged.

When transferring of education, it was done to improve other countries’ socioeconomic situation, and it was thought a need to transfer western understanding of education to the global South. The idea was that education could be exported to other countries in third world, so from practice to theory would produce what already existed in western society. Although all experience show that idea of transferring is not really sufficient, according to Tucker: “The transfer of goods, gadgets, capital, technology, hospital and roads (...) The economic policies and the economic accomplishments of the west cannot be replicated in the Third world counties (1999, p.2).

As was mentioned above, one of the main tools to transfer Western epistemology to the Third world is global organizations. One of the most important organizations that is active in educational development is the World Bank, and therefore, the article will now discuss the structure of the World Bank structure and how it has been a source of failures and frustrations in countries in the attempt to make developmental progress.

### 5. World Bank as global organization:

There are many organizations that are active in the sector of education since it is often regarded as a means to a better end. Therefore, “it has gained a central role in the international system of development and aid” (Shiotani, 2010, p.5). Based on the World Bank report in 2011, the organization is one of the important actors in education:

“The World Bank has probably been the most important contributor around the globe in education over the past 50 years; it has been the single largest source of support in the field of international education. The Bank has, since its inception, invested more than \$69billion globally in education through more than 1500 projects. The Banks support for education in terms of loan commitments was more than \$5 billion in 2010” (Breidlid, 2013; p.73).

It can be argued that the World Bank plays important role in transferring Western educational discourse to the South. As Breidlid (2013) states:

“The world Banks entire history, its creation, and its rational are rooted in the post-war reconstruction (and development) of capitalist economies according to the dominant Western/Eurocentric paradigms that scientific knowledge leads humankind's dominance of nature for endless, linear growth, and development” (p.73).

This quote here is to show the nature of World Bank is as a main actor in education, which is based on economic and western scientific understanding of the world. It is discourse because power and practice have significant role on it. In other world, “development has uniform characteristic” (Crewe & Harrison, 1998; p.17). This uniform is economic (both modernization theory and human capital theory) which believes that to have modernity and development in society, we should try to have modern humans as well.

From that point of view, the World Bank take knowledge produced in North and transfers it to South in order to aid development in society. In other words, their policy “is one size fits all” (Kless, 2002, Breidlid, 2013). According to Breidlid: “In the last decades the World Bank has been associated with neo-liberal ideology, and although there have been some changes (...), its belief in the Western educational discourse have remained constant” (2013; p73).

Consequently, World Bank is not just an organization that distributes money to develop the educational situation in the South but is also a promoter of the western hegemonic discourse on education (Jones, 2004). It is a kind of discourse that is more European-centered understanding of education which ignores cultural and historical context of countries in the South. "This one-size-fits-all approach, besides its modernist and unsustainable profile neglects the fundamental differences in educational topography in the various countries where the World Bank enters to assist" (Breidlid, 2013; p.74).

This is the place that global organizations have failures and frustration result in educational development because firstly, they teach their partners in South to be dependent on them so they are not as self-reliant as they could be. Secondly, those countries that normally have corrupt political systems, try to attract more money, and aid money can end up financing corruption instead of helping people. Thirdly, the price of development may be that people forget their own societal cultures.

## 6. Two sides of the same coin:

It should not be forgotten that the World Bank has also had a role in helping people in different countries to have a better standard of living. Furthermore, World Bank has had a positive role to give basic education to children and youth in different countries so that they are able to know about their culture and indigenous knowledge. Secondly, the World Bank activities are helping to spread educational technology like computer and internet in the South countries. Spreading knowledge around the world can give countries more opportunity to see different points of view and opportunities to know different ways to face their problems. Third aspect of the World Bank is that they are trying to change their programs as Kless (2002) status: "The Banks changes in development rhetoric to include empowerment, participation, even partnership, have positive aspect" (p.464). Also, as Breidlid (2013) points out, World Bank education Strategy 2020 includes three new areas: "Knowledge generation and exchange, technical and financial support, and strategic partnership" (p.73).

Hence, it may be noted the World Bank has progressed from their neo-liberal perspective to recognize their partner's rights to organize their education system based on their social- cultural context. We should keep in our mind that change is not something that can happen in one night. For the World Bank (2011) "Education is fundamental to development and growth" (Breidlid, 2013, p.73). Before moving to the second part of the article which will discuss South Africa and Cuba, it is necessary to explore what is meant by African values and culture? Which aspects of societal cultures are neglected by global organization?

## 7. Tradition, Home culture, Modernity in Africa:

We cannot find any society without inherited cultural values as Gyekye (1997) argues:

"It may be said that from the point of view of a deep and fundamental conception of tradition, every society in our modern world is traditional inasmuch as it maintains and cherishes values, practices, outlooks, and institutions bequeathed to it by previous generations" (p. 2018).

However, behind each modern society, tradition has taken place. Often, unfortunately, everything that is modern looks better than tradition, and tradition is usually seen as "rural, unscientific, and resistant to change" while "modernity is characterized as scientific, change-oriented, dynamic and urban" (Breidlid, 2002; p. 38). From here, it could be helpful to discuss tradition in general and what is tradition and culture in Africa, in abroad sense.

Fleischacker defines culture as a set of practices and beliefs that persists over several generations and tradition as a set of practices and beliefs that persists over several generations hence "practices-rituals, customs, superstitions-that passed down from generation to generation are tradition (Gyekye, 1997;p.220).Therefore, to understand what is tradition, it is good to try to have an idea about concepts that play a traditional role in Africa, such as: Ethnicity, place and space, land, spirituality, indigenous knowledge, ancestor. Because of space limitation the writer will explain briefly some of these concepts in order to understand the Western epistemology discourse in relation to alien educational system introduced to South Africa particularly. The explanation will be related to educational part of those concepts.

## 8. Ethnicity and education

South Africa is not a homogenous society. The region suffered from colonization still South Africa has very diverse ethnicity that "requires awareness, sensitivity and responsiveness on the part of school leaders" (Woods, 2004, p.98). As Chabal and Daloz (1999) mention, colonization wanted to establish the nation-state based on European understanding of it which in turn greatly impacted the multi-ethnic nature of Africa.

Colonial powers and the apartheid system had significant role in the process of establishing education policy because they transferred curriculum that was not based on student home culture of the indigenous students in South Africa. Thus, they suffered because the knowledge they bring from home was not being discussed or valued in the classroom (Breidlid, 2013; p.54). So many students have to study an alien culture that is completely different to what they experience in their daily life. This can be more problematic if we think how these children should construct their identity in school. In other words, they will have socialization process that is not fit with their cultural background.

As Breidlid argues: "There is an Othering here when your own culture and self-understanding is constantly being marginalized and looked down upon" (2013; p.56). On a large scale, what some scholars argue is that global architecture of education brings to Africa an education system which is completely different with the African context. This may affect the African situation negatively. Abdi states that: "Globalization is not designed... to develop the African people and its educational prescriptions are making the situation worse for African children" (Breidlid, 2013; p.57). Hence, the global architecture of education greatly impacts on education systems, such as the one in South Africa.

It is very important to remember that there is not only one path to development, in other words: "What kind of education is appropriate for what kind of development, and in whose interests?" (Fägerlind&Saha, 1989, p. 58). This is a relevant question when global organizations want to make policy for educational development. Western development in education system is impressive, however, experience shows, it cannot always have the same good results in different contexts. Any educational system should be fit with people's cultural background.

## 9. Indigenous knowledge

One of the important concepts in global south, and in South Africa particularly, is indigenous knowledge. Semil and Kincheloe(1999) define it as: "Indigenous knowledge (as) are knowledge produced in specific historical and cultural contexts or rules and orally passed down from one generation to the next"(as cited in Breidlid,2013, p.31). Further, "indigenous" people can also be defined "...in terms of a shared experience of domination" (ibid).

Indigenous people were affected, and still are by historical issues like colonization or that they are a minority group in their land within a dominant state system. In other words, they are not living in their cultural context due to historical or political events.

Indigenous knowledge is relevant to our discussion because it is important part of African culture as Ebdowo (1982) have exposed the “importance of metaphysics, spirituality, and religion in African epistemologies” (sited in Breidlid, 2013, p.33). Likewise, indigenous knowledge is coming from African context that is best way to reach sustainable development in Africa. As African philosopher Gyekye (1997) sees culture as socially created and nurtured meanings constituting and the greater portion of our necessary social context (Breidlid, 2013, p.33).

A western epistemology discourse, which was discussed earlier, has had an important role in the construction of the global architecture of education, which in turn has impacted on the development of educational policy in Africa. However, the context of such a discourse is that it ignores indigenous knowledge in Africa, since from the western point of view, Western means “developed, industrialized, urbanized, capitalist, secular and modern” (Hall, 1996; p.186) and every other concept that cannot be related to that discourses is usually referred to as underdevelopment. From this view, indigenous knowledge can exist just in religious ceremonies or rituals, while numerous Africans practice it in their everyday life. African societies often see the world differently than how the western society sees it, as Chivaura (2006) states:

“The African worldview declares that our world has two aspects: they are the physical and spiritual...the difference between African and European worldviews concerning earth and heaven relate to differences in their attitudes towards the material and the spiritual” (sited in Breidlid, 2013, p.34).

Problems rise here because from western epistemology, knowledge should be secular and scientific and not spiritual, while an African understanding of knowledge is related to both the physical and spiritual part of life. Therefore, a western based educational system which is transferred to a differing context may produce an alienated person from their African culture.

## 10. Ecology and indigenous knowledge

One of the areas western epistemology ignores when transferring educational system to Africa, is the ecological part of the indigenous worldview in the African context. As Semali and Kincheloe (1996) point out: “Indigenous knowledge focus on relationship of human beings to both one another and to their ecosystem ... an emphasis which has been notoriously absent in the knowledge produced western science over the last four centuries” (sited in Breidlid, 2013, p.35). Therefore, the educational system that comes from different context cannot be fit with an African context since it lacks the three most important parts, which are the human being, land and spirituality. The kind of education given teaches children a completely different set of values and has little relation with who they are historically, socially and environment part.

As Max Webers (1905) argues that capitalism is based on the assumption that “...there is a close relationship between Protestantism and capitalism (...) the idea is that domination over nature through hard work and frugality will be rewarded by God” (as sited in Breidlid, 2013, p.23). However, African understanding of ecology and environment is as Nahtani Wane (2006) explain based on spirituality: “is vital life force that animates African peoples and connects them to the rhythms of the universe, nature, ancestor and the community” (sited in Breidlid, 2013, p.36). Hence, it can be understood there is a

difference between the epistemologies of western and African societies.

African world view has different understanding of ecology and environment which can be helpful for our world when it comes to serious ecological problems. Some ecological problems have root in western understanding of environment, where man controls nature.

However, it is important to point out that indigenous knowledge does not have all answers to environmental issues in the modern world and should also be looked at critically. As Breidlid (2013) points out: “The potential rebirth of indigenous knowledge does not mean that indigenous knowledge should be essentialized, romanticized, or presented as monolithic and uncontested even by indigenous populations”(p.43). Furthermore, though indigenous knowledge are essential aspects in how one views the world, it does not mean it should form new discourses to manage world views. However, it is essential to value alternative epistemologies to solve world problems and also is necessary that African can be able to have education based on their culture, society and ecology.

To have clear idea about African context article will turn to second part that is about South Africa and Cuba. In second part, the article will explain socio-historical and cultural relations in development in a South African context in order to understand what is the role of the global architecture of education in that particular context. Then Cuba will be discussed as a country that established a different educational system, which differs from the western epistemology. This is done in order to see an alternative to education which other countries can use to build their own systems.

## 11. Part Two; South Africa

South Africa experienced a harsh apartheid education system that had different educational opportunities for black and white people. After Apartheid, South Africa tried to have an educational system based on a post-apartheid condition, therefore, they had different policy from 1994 to 2005 that resulted in curriculum 2005 (Breidlid, 2002, 2013).

Nelson Mandela and Thabo Mbeki had important roles in African renaissance and their “focus is related to building a nation where African values, knowledge and heritage are central” (Breidlid, 2013, p.78). To reach that aim, curriculum 2005 stipulates that indigenous knowledge such as their technology and science should be included in the curriculum so that students can be familiar with indigenous cultures (Breidlid, 2002). However, despite this statement in the curriculum, the South African education system is based on western science, and indigenous knowledge “play peripheral or even exotic role” (Breidlid, 2002, p. 46). Hence, children’s socialization process may be alienating them because this separates students’ home and school culture. To show how it may be, article will continue to explain relationship between indigenous and western education in South Africa.

According to Breidlid (2013): “majority of school children in South Africa come from backgrounds where the key concepts and epistemological orientation that are linked to a modernist education system are alien” (p.93). In addition, as other research performed among other ethnic groups in South Africa shows, indigenous worldviews is based on “spirituality and ancestral beliefs” (Leclerc-Madlala, 1999; Mbiti, 1969 sited in Breidlid, 2013, p93). The challenges that curriculum 2005 face is because it “...is modeled on a Western discourse, depending heavily on different international context” (Breidlid, 2013, p.98). Although, other part of the curriculum which is about giving skill and knowledge to the learner so they can be useful for their country in a post-apartheid society is very worthwhile. However, these skills and knowledge may not fit with their context and what this

can produce is a learner, alien to their identity. As Olugbemiro J. Jegede and Glen S. Aikenhead (1999) point out:

“When the culture of science is generally at odds with a student’s life world, science instruction will tend to disrupt the student worldview by trying to force that student to abandon or marginalize his or her life-world concepts and reconstruct in their place new ways of conceptualizing” (sited in Breidlid, 2013, p100).

Interestingly, the revision of curriculum 2005 did not recognize indigenous knowledge and it tried to adapt its national curriculum to other international curriculums in the world (Breidlid, 2013). So, after many years, educational policy-making in South Africa does not recognize their own culture and society, which can offer a different alternative for educational development beyond a liberalist one. Furthermore, students in South Africa have to practice western educational system while they could be learning about their cultural capacity to contribute for sustainable development.

Department of Education (1997) in South Africa seeks to construct “a shared understanding of a common South African culture” (sited in Breidlid, 2013, p.97). This ignores the fact that their context has multiple identities based on their historical background and social reality. Hence, what the curriculum is doing is trying to create “a sense of constructing a national identity where certain cultural values are promoted and others are not” (Breidlid, 2013, p.97). Consequently, C2005 want to create a society based on Western understanding of a nation-state with the belief that introducing modern education will help reach western economical standard.

The growth that western societies have experienced is not being experienced in the general society of South Africa. Partly, the reason for this can be that the education system is divided into two parts. In one part, western educational perspective affects all their institutions, have a very formal structure as presented by Department of Education. On the other side, is the indigenous knowledge that is represented by indigenous peoples and communities (Breidlid, 2013). Combining these two parts can in turn have “...the possibility of generating cultural centered knowledge in a third space” (Breidlid, 2013, p. 103).

Another example of westernization is that the South African education system has English language as its language of instruction in schools which can be an obstacle in children’s socialization process and is a heritage from colonial time. Ngugiwa Thiong’o states that: “from a word, a group of words, a sentence and even a name in any African language, one can glean the social norms, attitudes and values of a people” (1986, p. 8), underlining the importance of one’s own language. This is another challenge which comes from C2005 that does not recognize South African context and believe that only way to develop is to fit with a western standard of education.

## 12. Cuba

Cuba has one of the best educational systems in the global South. Here, the writer will discuss Cuba’s educational and social context in order to explain: how Cuba can establish a different, yet “successful” educational system apart from the global architecture of education; and, what are the characters of the educational system which makes it a unique educational system.

The Cuban “educational system is famous for its focus on inclusion and equality of opportunity, but also for its focus on political and ideological conformity” (Breidlid, 2013; p.141). It can be discussed that to have an ideologically hegemonic educational system is a negative side of Cuba’s education system, which forces people to have certain education and certain jobs. Most human beings wish to be free to choose their

own lifestyle. This ideological part of education is a negative part of any education system that is ideologically based; either it is Islamic ideological education system in Sudan or Iran, or western education system that wants to force liberal values upon the global south. However, as Breidlid (2013) point out “when analyzing the Cuban educational discourse there is needed to distinguish between the educational systems ideological and epistemological foundation” (p.141).

The Cuban communist government emerged after the revolution in the 1950’s. The communist party runs the economy and the society. In fact, based on undemocratic and hierarchical structure of Cuba there is no other political party (Carnoy, 2007; Breidlid, 2013). Fidel Castro sees education as a very fundamental right for society as he states: “the happiest country is the one which has the best educated sons, both in the instruction of thought and the direction of their feelings”(Sited in Breidlid,2013,p.147). From that point of view after revolution, Cuba established a literacy campaign in order to have “Free education and health care were factors that contributed positively to the improvement of the lives of those people who had been oppressed by the Batista regime” (Breidlid, 2013; p.147).

As UNESCO research in 1997 and 1999 show: “Third and fourth grade children scored much higher in math and language than pupils in other Latin American countries” (Sited in Carnoy, 2007; p.6-45). This research is important because Cuba has shown it can have a successful educational system without assistance from the World Bank or any other global organization. As Breidlid states: “Cuba has resisted the globalized drive for privatization, and its merits have been accomplished with no assistance from the World Bank” (2013, p.163).

Cuba’s education is free of charge from kindergarten to university so their success is not dependent on their parents’ economic background. In other words, “students in the Cuban system are not disadvantaged because of present forms of racism, present forms of structural inequalities” (Breidlid, 2013; p.162). Cuba’s education system is not just good in a quantitative way, rather as EFA Global Monitoring and UNESCO Report in 2005 mention “Cuba is one of four countries mentioned which have achieved high standards of education quality” (Sited in Breidlid, 2013; p.165).

In addition, Cuba is trying to combine indigenous knowledge with their educational system as Breidlid explains how Cuban children in primary school are “trained in herbal remedies, which they can prepare at home as poultices, tinctures, salves and teas” (2013; p.159). Further, students in “Grade 8 focuses on energy and renewable energy sources and their relationship to the environment” (Breidlid, 2013, p.159).

To understand how Cuba can do better with their educational system, Carnoy (2007) introduced four criteria: first) State-Generated Social Capital Matters as Cuba education system spend resource to have equal and high-quality education for all children in a safe and healthy environment. Second) Curriculum Matters, but its Implementation Depends on Teacher capacity as Cuba curriculum is more practical and is more covered in school because it is more fit with teacher’s educational background. Third) Teacher training education in Cuba is more professional approach to teacher training. In addition, it has a clear vision of a high-quality, successful teacher education program. Fourth) Cuba education system is organized around high-quality instruction to make sure that required curriculum is being implemented. Therefore, Cuba education has an evaluation system that helps them to improve their teachers and curriculum (pp. 143 - 153).

Recently, Cuba got a new secondary education policy that has some negative effect on the quality of teaching because teachers in Cuba used to teach in their special subject but now “teachers are expected to teach all subjects with the exception of foreign

language, computing and arts” (Breidlid, 2013; p.151). Likewise, the effect of tourism and oil industry has brought different social class with different economic ability, which expects to have private schools. Therefore, Cuban educational system is facing some challenges but the important point about Cuba educational system is that students do not experience an alien educational discourse like what happened in South Africa. In addition, the main reason Cuba was used as an example was to show how the global south countries can have other alternatives in front of them. They should trust their resources such as their people, culture and environment in order to have development.

### 13. Conclusion

The article tried to introduce some of the most complicated concepts in the world today. Concepts like education, development, western hegemonic discourses, Indigenous knowledge were discussed. Firstly, the article wanted to show the background of global architecture of education is. Secondly, how global architecture of education effected Africa and South Africa in particular. Thirdly, to show how the World Bank as a global organization is active in transferring educational system from west to global south. Even though the global architecture of education affects educational systems, it is not white and black. In other word, organizations like World Bank and UNESCO have a lot of positive effect to educational development as well. Lastly, the article tried to bring Cuba in as an example that can do better with their educational system even though it is not connected to western discourses in education. Other countries may learn from this.

With all the discussion around concepts about how educational systems should be in the 21<sup>st</sup>- century, I hope educational policy-makers can agree with what Freire suggests that: “every human being is a repository of knowledge, not an “empty vessel” devoid of knowledge, and he has valuable experiential knowledge to be applied in problem-posing dialogues” (sited in Breidlid, 2013; p154).

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## ESTIMATING THE DEMAND FUNCTION FOR GASOLINE AND DIESEL AND THE EFFECT OF SUBSIDY REMOVAL ON DEMAND RATE OF THESE PRODUCTS (CASE STUDY: IRAN)

<sup>a</sup>SAJAD BOROUMAND, <sup>b</sup>ZAHRA SEYED ALI LAVASANI

<sup>a</sup> *Department of Economic, college of Humanities, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.*

<sup>b</sup> *Master of Media Management, Tehran, Iran.*

Email: <sup>a</sup> *Borus\_181@iauksh.ac.ir*, <sup>b</sup> *elavasani@gmail.com*

**Abstract.** Our aim in this study is to measure the effect of the policy of removing subsidy on the demand for gasoline and diesel, we have estimated the function of demand for the desired products using conventional econometric methods and applying Ordinary Least Square (OLS) technique and calculated price and income elasticity for them. It was determined that short-term price elasticity for gasoline and diesel was respectively -0.10 and -0.15 which was also consistent with theoretical foundations. Also, long-term price elasticity for petroleum and diesel is respectively a significant number of -0.42 and -0.49. Therefore, removal of subsidies can play a role in controlling demand and reducing the growing process of their consumption.

**Keywords:** indirect subsidy, econometrics, ordinary least squares, price and income elasticity

### 1 Introduction

The present structure of production and petroleum and diesel consumption in the country is affected by political and social conditions of the past and different factors including economic structure of the country in one hand and public management in energy section in other hand to the consumers of these products regardless of income status and their role in national production. In other words, the government without achieving the goals of establishing subsidies has fueled to the inefficiency in consumption of these products by paying huge sums as subsidy to the consumers of these products. It is natural that the first step (but not the only step) of the government to rationalize the process of gasoline and diesel consumption is revision of the pricing policy of these products and as a result revising the policy of paying subsidies to all consumers no matter what their situation is. However, it should be considered that discussing and commenting on the way of implementing the program of paying subsidy to the consumers is not in the field of this study and there should be an independent study in this area. In other words, here, we don't mention the conditions that recipients of subsidies should have to pay them subsidies and also mechanism of paying subsidies that need thorough investigations (Gujarati, 2003).

In this research, we have estimated the total demand for gasoline and diesel which is obtained from total demand for different parts.

Also, the important point is that in this research, the purpose of changing the amount of demand due to the policy of removing subsidies is the amount of reducing demand relating to the consumers.

Hence, in this research, we will estimate the demand model for gasoline and diesel in Iran after reviewing the studies in this field. After analyzing the estimated model, we will evaluate the reduction rate in demanding for petroleum and diesel due to the policy of removing subsidies.

### 2 Research Methodology

The documentary method in this research is applied to identify and collect data and statistical methods and econometric are used for analysis.

Data applied in this research is in form of time series data annually and for a period of 41 years from 1971 to 2011.

Since, in this study, we aim to measure the effect of the policy of removing subsidies on the demand for the main oil products, we

will estimate the demand function for the desired product by the use of conventional econometric methods using OLS method and Eviews software and price and income elasticities will be calculated for them. Assuming other conditions to be constant, and to not change the structure of demand function of each product within the price increasing of that product, and according to the theory of demand, we will calculate the reduction rate in consumption of each product due to removing subsidies and pricing based on Persian Gulf Free On Board (FOB). The important point is that in this research, changing the amount of demand due to the policy of removing subsidies is the amount of demand reduction which is related to consumers.

### 3 Research literature

Theoretical basis of this research is based on microeconomics and theory of demand. Demand function in its general form shows the amount of the good that an individual will buy according to different prices of that good and his income.

Two important functions are derived from these functions,

1. Demand for each product is a function of price and income level.
2. The demand functions are homogeneous from zero degree with respect to price and income. This means that if all prices and income change to a same amount, there will be no change in the amount of demand.

In economic texts, other variables have been considered as factors affecting determination of demand level of consumer.

Usually, 4 important factors are named in this regard:

1. Price of the studied good as the most important determinant factor
2. The consumer's money income
3. Consumer tastes
4. Price of alternative and complementary goods

This can be written as follows:

$$Q_x = f(P_x, Y, P_c, P_z, T, \dots) \quad (1)$$

In which,  $Q_x$  is the demand rate for the good  $x$ ,  $P_x$  is the price of good,  $y$  is money income,  $P_c$  is the substitute good price,  $P_z$  is the complimentary good price and  $T$  tastes and preferences.

The demand law says that assuming other conditions to be constant, if the price of a good increases, its' demand rate will be reduced. This means that except in extreme cases (Giffen good), if individual consumers want to maximize their satisfaction according to their limited money income, their individual demand and the price of good will move in the opposite direction. In other words, we will have:

#### 3.1 Price elasticity of demand

It is defined as a relative sensitivity of the rate of demand towards changes in price. Price elasticity of demand is calculated by the following equation:

$$E_{xx} = \frac{\partial(\ln X)}{\partial(\ln P_x)} = \frac{\partial X}{\partial P_x} \times \frac{P_x}{X} \quad (2)$$

\* If the demand curve is descending, numerical value of this elasticity will be negative.

### 3.2 Income Elasticity of Demand

It is defined as the relative sensitivity of the rate of demand towards changes in income. Income elasticity of demand is calculated via below equation:

$$\text{Exy} = \frac{\partial(\ln X)}{\partial(\ln Y)} = \frac{\partial X}{\partial Y} \times \frac{Y}{X} \quad (3)$$

\* If the good is normal, the demand for good is increased by increasing income.

Therefore, since our aim in this review is to measure the effect of the policy of removing subsidies on gasoline and diesel demand, we can see the effect of removing subsidy (pricing based on Persian gulf FOB instead of subsidized price) on demand for these products by estimating the demand function and determining the price elasticity.

### 4 Definitions and Concepts of subsidy

In dictionaries, subsidy or subside (in French) is mostly defined as free help and government financial donations to people from time to time and include:

A kind of government support from a certain stratum of society (or sometimes the entire community) in certain time periods or emergency in order to provide social welfare through reducing the costs.

There are also other definitions for subsidy in the following:

Subsidy is "direct or indirect payment of government, economic privilege or grant especial preference which is given to private institutions, households or other governmental departments in order to achieve the government desired goals.

Subsidy: it is a payment by the government (or by private persons) which creates a gap between the price that the customer pays and expenses that manufacturer will be incurred.

Subsidy: a transition from taxpayers to manufacturers or consumers of a particular good in order to influence on the behavior of suppliers through the mechanism of supply elasticity or demand elasticity in order to keep fix or low the price of certain goods.

Direct subsidy: it is the amount of costs that government pay directly to protect the interests of society for using the goods.

Indirect subsidy: it is a part of state aid which offers a good to the consumer with lower price than its' finishes expenses. The paying subsidy to gasoline and diesel is classified in this category.

#### 4.1 Existing views on subsidies for oil products and our view in this research

A view that seems to be traditional-popular and usually has been discussed in the society is that Iran due to having rich oil reserves and these resources belong to all people of Iran, thus, the full payment of the cost of consuming products such as non-oil countries is not necessary.

The second view existing among the experts of the country in favor of the policy of paying subsidy to energy, especially oil products is according that Iran has oil reserves and resources and is an oil exporter, hence, the existence of these resources should be an advantage for the country domestic production which should be competitive using the advantage of cheap energy with similar foreign products which use expensive energy. Regarding the second view, it should be noted that although in the theory, such an advantage can be imaginable for competitiveness of locally manufactured goods with similar foreign goods; but having a look at the consuming structure of these products in Iran which more than 60% of these products are consumed in services parts, thus they have no role in production. About the rest, also due to lack of an efficient use of energy in our economic manufacturing section, energy consumption is non-working. On the other hand, lack of attention to the energy consumption in locally manufactured goods has also taken the possibility of exporting these goods from the domestic industry. For example, many of domestically produced cars would not be exportable to many parts of the world due to high gasoline consumption. The third view is that the lack of appropriate pricing of oil products and stabilization of their prices so that the real price of these products has been decreased sharply has led to unreasonable consumption of these products and if the growth of current consumption continues, Iran would be a net importer of oil for its domestic consumption in a very near future. Therefore, it is necessary to determine the price of these products synchronized with the international price and taken from consumers.

In this case, both the consumption of these products will be saving and growing demand will be controlled and also the efficiency of production system, especially industrial products will be increased by correcting the relative prices. The other hand, financial problems of Iranian Oil Company will be resolved and required resources will be supplied to invest in energy section. In short, these experts believe that subsidy of oil products should be completely removed and the economy will adapt to the new situation in long term.

#### 4.2 The results of some estimated models about the price and income elasticities

As the following table 1, indicates, the short-term price elasticity calculated for motor gasoline demand is between -0.0048 and 0.39 in numerous studies. In these studies, long-term price elasticity of gasoline was between -0.033 to 1.15. In investigations, the rate of long-term price elasticity has been increased by getting closer to the present time. The range of changes for short-term income elasticity has been from 0.18 to 0.725 and between 0.56 and 1.89 for long-term income elasticity.

Table 1. The short-term price elasticity calculated for motor gasoline demand

	short-term price elasticity	long-term price elasticity	short-term income elasticity	long-term income elasticity
Plan and Budget Organization model	-0.38	-	0.72	-
Model of Mohammad Amin Kianian 38-57	-0.004	-0.032	0.23	0.91
Model of Mhammad Amin Kianian 39-68	-0.25	-0.59	0.24	0.56
Model of Salehi Esfahani (2009)	-0.07	-0.55	0.18	1.38
Model of Ali Arabmazar Yazdi	-0.18	-1.15	0.30	1.89
Model of Abbas Karimzadeh	-	-	0.31	0.75
Model of Mohammad Ali HAJimirzaei	-0.39	-	0.19	-

Below table 2 has provided the calculation of price and income elasticities of demand for gas oil, derived from studies done in

the past. The table indicates that the change range of short-term price elasticity of these products is between -0.04 and 0.63. This

range for its' long-term price elasticity is from -0.2 to -0.59 which shows the low elasticity of these products in long-term and short-term towards the price. Short-term income elasticities

show the figures between 0.17 and 2.78 and the figures between 0.15 and 6.6 for long-term.

Table 2. change range of short-term price elasticity of these products is between -0.04 and 0.63

	Short-term price elasticity	Long-term price elasticity	Short-term income elasticity	Long-term income elasticity
Model of Plan and Budget Organization	-0.16	-	0.79	-
Model of Mohammad Amin Kianian 38-57	-0.04	-0.59	0.17	2.34
Model of Mohammad Amin Kianian 39-68	-0.63	-0.21	0.44	0.15
Model of Salehi Efahani (2009)	-0.29	-0.54	0.48	0.49
Model of Ali Arab Mazar Yazdi	-0.24	-0.058	0.39	0.95
Model of Abbas Karimzadeh	-	-	2.7	6.6
Model of Mohammad Ali Haji Mirzaei	-0.35	-	0.35	-

### 5 Demand model for gasoline and diesel and evaluate the effect of removing subsidies on demand value of these products

Given that removing subsidy of gasoline and diesel means to increase selling price of these products and since these products are known as normal goods, thus, we expect that the demand for these products face reduction by increasing the price of these products considering other factors constant; the reduction rate of demand in short-term depends on the size of price elasticity of these products (Pin Dyck, 1997).

If the good is normal, its' demand curve will be descending. Hence, the numerical value of price elasticity of demand for that good also should be negative. Given that our reviewing goods which means petroleum and diesel are normal goods, so we expect that their demand rate is reduced by increasing their price.

In this section, we will introduce the model and its' variables. The model applied in this research is in form of full two-way logarithm (log-log).

The overall shape for each of these products is as below. It can be found from the shape of model that this model has many similarities with fitted model.

$$\text{Log } q_{ijt} = \alpha_{ij} + \beta_1 \text{Log } y_{ijt} + \beta_2 \text{Log } P_{ijt} + \beta_3 \text{Log } q_{ijt-1} + \epsilon \quad (4)$$

In which,

q: represents the use of each of these products in the country at t time. y: is gross domestic product. P: indicates the real price of the desired product. The real price of each product is obtained from dividing its' nominal price on the retail price index (cpi). qt-1: it shows the consumption of desired product in last year. This is entered into the model in order to convert the model to a dynamic model and considering the variables which have not been considered.

According to enter this variable (delayed dependent variable) in the model, our model can be classified with partial adjustment models.

In these models it is assumed that the effect of changes in independent variables is not reflected on dependent variables in real time, but also this is done with delay. One of characteristics of this model is that Durbin-Watson index (D.W) in these models tends to number 2 unrealistically and as a result, it makes

it difficult to judge about presence or absence of autocorrelation. So, h-statistic is used to judge about the presence of autocorrelation which is calculated as follows:

$$h = (1 - 1/2 d) \sqrt{n/1-n} [\text{var } \beta_3] \quad (5)$$

In this formula, d is statistic of Durbin-Watson and n is the number of observations. If the calculated h is in the range of -1.96 < h < 1.96, the autocorrelation assumption can be excluded.

In econometric studies, we should consider our expectations about the values and symbols of estimated parameters based on theoretical foundations.

According to theoretical foundations, it is expected that the sign  $\beta_1$  (income elasticity) be positive for each of these parameters. It is also expected that the sign  $\beta_2$  (price elasticity) occur with negative signs for them. About  $\beta_3$ , since this coefficient can reflect the effect of consumption habits of consumers, it is expected to occur with positive sign.

Considering that in complete logarithmic models, coefficients represent elasticities,  $\beta_1$  and  $\beta_2$  coefficients indicate short-term income and price elasticities.

### Data

The data used in this research for estimating demand function for the oil main products is from the type of time series and related to the years 1966-2006.

In this section, referring to our desired model, we will evaluate each of variables, the way of their calculation and the source which has been referred to for each data. Some variables have been considered which have been better descriptors for changes of demand value of petroleum and diesel in previous studies. We pointed out that our model is as follows:

$$\text{Log } q_{ijt} = \alpha_{ij} + \beta_1 \text{Log } y_{ijt} + \beta_2 \text{Log } P_{ijt} + \beta_3 \text{Log } q_{ijt-1} + \epsilon \quad (6)$$

In which, q is the indicator of the product per capita consumption. For each product per capita consumption, we have used q instead of benq for gasoline and gasoq for diesel. Statistics of consuming these products have been extracted from available statistics of National Iranian Oil Company (2009) Consolidated Plan Management for the years 1966-2006. Also, consumption of these products are based on million liters per year (figure 1, 2, and 3).

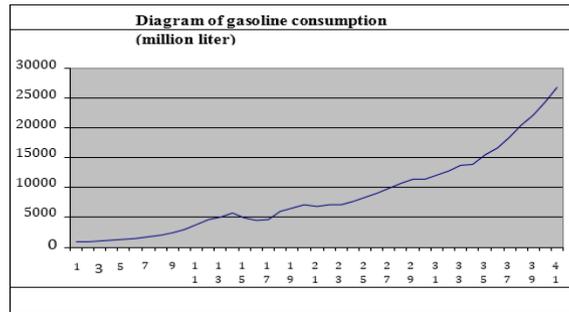


Figure 1. Diagram of gasoline consumption for the period 50 to 90 years (based on million liter).  
Source: National Iranian Oil Company Consolidated Planning management

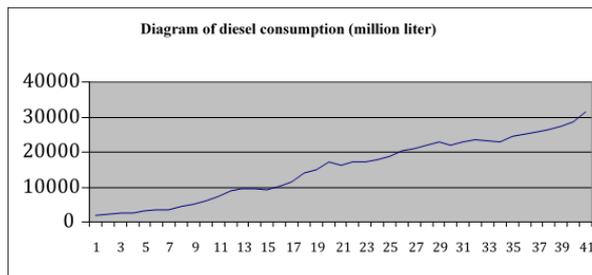


Figure 2. Diagram of diesel for the period 1970 to 2010 (based on million liter)  
Source: National Iranian Oil Company Consolidated Planning Management

Also, we have used gdp capita instead of income y representing GDP per capita at constant price in 1997. These information are

extracted from time series statistical collection of economic statistics of Central Bank.

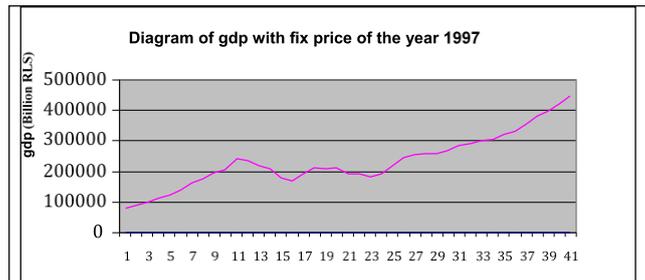


Figure 3. Diagram of GDP for the period 1970 to 2010 (in billion RLS)  
Source: Central Bank

Figures (4, 5, and 6) related to qt-1 which in our model is benq1 for gasoline and gasoq1 for gas oil, are obtained according to the statistics of consumption with a one-year delay.

services in urban areas has also been used (consumer price index). The data source is related to the nominal price of petroleum main products of Iranian Oil Company Consolidated Planning Management.

For the real price of each product, the nominal division of each product on the index of total price of the good and consuming

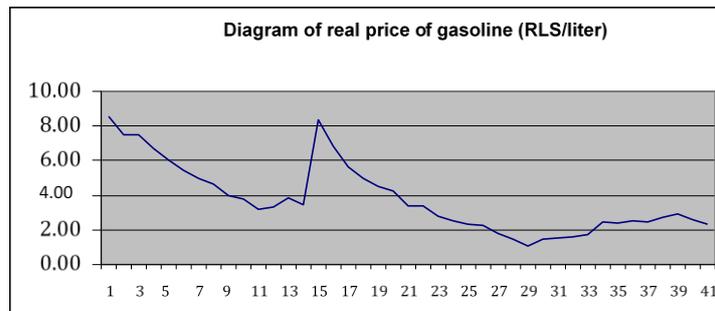


Figure 4. Diagram of the real price of petroleum for the period 1970 to 2010 (per RLS/liter)  
Source: National Iranian Oil Company Consolidated Planning management

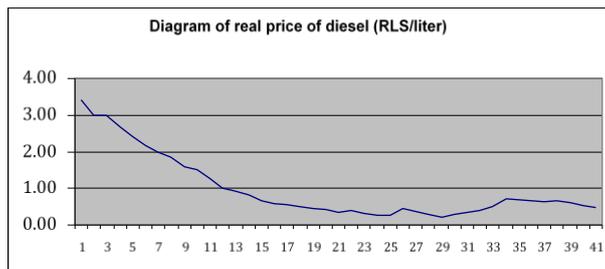


Figure 5. Diagram of diesel real price for the period between 1970 and 2010 (per RLS/liter)  
Source: National Iranian Oil Company Consolidated Planning management

Thus, total figure of demand function of each of main oil products will be as following:

$$Lbenq = 1.7282 + 0.3328 \lgdp + 0.7545 lbenq1 - 0.1052 lbenp - 0.9701 ma(1) \quad (9)$$

D.W=2.26      R2=0.9842      h=1.15

**5.1 Demand function of petroleum**

$$Lbenq = \alpha + \beta 1 \lgdp + \beta 2 lbenp + \beta 3 lbenq1 \quad (7)$$

In which,

L indicates the related variable logarithm. Benq: gasoline per capita consumption. gdp: Gross Domestic Product in constant prices of 1997. Benq1: per capita consumption of gasoline with a delay. Benp: real price of gasoline.

**5.2 Demand function of diesel**

$$Lgasoq = \alpha + \beta 1 \lgdp + \beta 2 lgasop + \beta 3 lgasoq1 \quad (8)$$

In which,

L: indicates related variable logarithm. gdp: GDP per capita in constant prices in 1997 Gasoq: per capita consumption of gas oil. Gasoq1: per capita consumption of gas oil with a delay. Gasop: real price of gas oil

**5.3 Results of model estimation**

In this part of study, we will evaluate the results of model estimation in demand for each of these products. Estimation of each of demand function based on ordinary least squares (OLS) method. These estimations are done using Eviews software. The estimation results for each of desired products are given below separately.

**5.3.1 Estimation results of gasoline demand function**

According to the available figures, the gasoline demand function has been fitted as follows:

Table 3. Short-term and long-term income and price elasticities of gasoline

Product name	Short-term price elasticity	Short-term income elasticity	Long-term price elasticity	Long-term income elasticity
gasoline	-0.1052	0.3328	-0.4285	1.09

Source: research findings

As is shown in above table 3, long-term income and price elasticities in this product is more than income and price elasticities of the product under the discussion. The long-term price elasticity of demand for gasoline is -0.42 which is a significant figure. The calculated income elasticity in long-term for demanding this product is about 1.09 which implies luxury of this product in economy of Iran.

\* The model was under the following tests to evaluate the classic assumptions

Model interpretation:

As we can see, the t-statistic is significant for all explanatory variables at one percent of confidence level. R2 is also higher than 0.98. Durbin-Watson (D.W) statistic is close to 2, but since the model has time delay, it cannot be invoked due to the lack of autocorrelation. Hence, h-statistic should be applied. h-statistic for this model is equal to 1.15 and is indicative of lack of autocorrelation in the model due to being in the distance of -1.96 < h < 1.96.

\* The numbers in parentheses are also indicator of standard deviation

\* In the above model, short-term income elasticity is equal to 0.33 and price elasticity is also equal to -0.10 which will be discussed more in next sections.

\* We have used below relations to calculate long-term price and income elasticities:

**Coefficient of desired product with delay -1/ price coefficient of each product-long-term price elasticity**

Coefficient of desired product with delay -1/ coefficient lgdp-long-term income elasticity

\* We used the mentioned relations to calculate long-term price and income elasticities. Below table 3 indicates short-term and long-term income and price elasticities for gasoline:

1. We applied White test in order to detect heteroskedasticity and the assumption H0 based on homogeneity of variances was rejected. So, we used Eviews software to remove this problem and clicking heteroskedasticity.

2. We used Lagrange Multiplier (LM) test to detect autocorrelation and Moving Average cubic MA (3) was used to remove autocorrelation.

3. We used Dickey Fuller test to detect stability of explanatory variables of the model and found that these variables were stable with one time differencing and integration of all of them was

from first order or I(1). After Dickey Fuller test on the residues, we found that the integration was zero-order I(0).

\* In this equation diesel is considered as the nearest substitute for gasoline and that is why the price of diesel has been entered into the model. But, it was observed in investigations that according to the figures available, gasoline and diesel cannot be replaced with each other. Hence, we removed the price of gas oil from the model.

### 5.3.2 Estimation results of diesel demand function

According to available figures, gas oil demand function is obtained as follows:

$$L_{\text{gasoq}} = 1.2952 + 0.3227 I_{\text{gdp}} + 0.6956 I_{\text{gasoq1}} - 0.1505 I_{\text{gasop}} \quad (10)$$

D.W=2.12    R<sup>2</sup>=0.97    h=-0.42

- Model interpretation

Table 4. Short-term and long-term income and price elasticities for diesel

Product name	Short-term price elasticity	Short-term income elasticity	Long-term price elasticity	Long-term income elasticity
Diesel	-0.1505	0.3227	-0.4944	1.06

Source: research findings

As can be seen in the above table, long-term income and price elasticities about this product is more than its' long-term income and price elasticities. Long-term price elasticity of diesel demand is -0.49 which is a significant figure. The calculated long-term income elasticity for demand of this product is about 1.06 which implies the luxury of this product in Iran economy.

The model was under below tests to review the classic assumptions:

1. White test was used in order to detect heteroskedasticity and the assumption H<sub>0</sub> was approved based on consistency of variances.
2. The LM test was used to detect the autocorrelation and the assumption H<sub>0</sub> was approved based on the lack of autocorrelation.
3. Dickey-Fuller test was used to detect stability of explanatory variables and concluded that these variables with one differencing which means that they were all integrated from the first order I(0). After Dickey-fuller test on residues, we found that the integration is from zero-order I(0).

\* It is expected that petroleum be the nearest substitute for gas oil due to the more use of gas oil in transportation; but, since replacing gasoline with gas oil requires some changes in cars' system, this substitution cannot be done due to technical and economic limitations. Thus, the substitute variable in this demand equation is not intended.

### 6 Evaluate the effect of removing subsidies on demand for gasoline and diesel

Since in complete logarithmic models, coefficients indicate elasticity; therefore, in above models coefficients of lbenp and lgasop are indicative of price elasticities of demand.

Since the price elasticity indicates the percentage rate of change in demand rate of a good per one percent change in prices and also, removing subsidies of petroleum and diesel means to increase its' selling price. Hence, price elasticity of above models indicates that consumption rate of gasoline and diesel is with complete low elasticity compared with its' price. In other words, if the price of gasoline increases for one percent, its' demand value will be reduced in short-term only for 0.10 percent. But, it will be a significant value in long-term and will

According to the results obtained, t-statistic has almost significant reliability for all explanatory variables. R<sup>2</sup> of the reviewing model is equal to 0.97. Durbin-Watson statistic for this equation is approximately equal to 2 but is not reliable, because delayed depended variable is used in the model. h-statistic for this model is equal to -0.42 and is indicative of lack of correlation in this regression because of being located between the distance of -1.96 and +1.96.

\* In the above model, short-term income elasticity is equal to 0.32 and price elasticity is also equal to -0.15.

\* The numbers in parentheses are indicator of standard deviation.

\* We used the mentioned relations to calculate long-term price and income prices; the following table 4 indicates short-term and long-term income and price elasticities of diesel.

be equal to -0.42. But in long-term it will be significant and equal to -0.49.

### 7 Conclusion

In this research, since our goal was to evaluate the effect of the policy of removing subsidy on demand value of oil main products, we estimated the demand function for desired products by the use of econometric methods via OLS method and the use of Eviews software and price and income elasticity's were calculated for them. It was found that short-term price elasticity for gasoline and diesel were respectively equal to -0.10 and -0.15 and long-term price elasticity for them were respectively significant figures of -0.42 and -0.49. Then, assuming other conditions to be constant and in process of price increase of each product, the structure of its' demand function will not change. We calculated the reduction rate in consumption of each product due to removing subsidy and pricing based on Persian gulf FOB according to demand theory. It was clear that a significant value of consuming these products will be reduced by implementing this policy and thus greater financial resources will also be achieved. In addition to reduce the damaging environmental effect and so on, obtained resources can be spent on infrastructural investments and increasing development activities.

In fact, the lack of appropriate pricing of oil products and fixing their prices so that the real price of these products has been decreased sharply has led to unreasonable consumption of these products. If growth of current consumption continues, in a very near future, Iran would be a net importer of these products for domestic consumption and enormous amount of money would be spent on paying subsidy to these products. Hence, it is recommended to determine the price of these products synchronized with their international price and be taken from consumers. As a result, changing the price in order to make efficient the consumption of these product is essential in Iran despite many political and economic obstacles. In this case, both the consumption of these products will be saving and also the demand growth will be controlled. Efficiency of production system especially industrial production will be increased by correcting the relative prices and economy will also be adapted with new situation in long-term.

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## THE CONCEPT OF “ BECOMING ” IN *THE RED BADGE OF COURAGE*: A DELEUZIAN READING

<sup>a</sup>KHADJIEH OGHBAEE, <sup>b</sup>SAEED YAZDANI

<sup>a</sup>MA Student, Department of English Language and literature, Boushehr Branch, Islamic Azad University, Boushehr, Iran

<sup>b</sup> Department of English Language and Literature, Boushehr Branch, Islamic Azad University, Boushehr, Iran,

Email: <sup>a</sup>khadjieh.oghbaee3@gmail.com, <sup>b</sup>saed.ani.sy2@gmail.com

Abstract. The present article seeks to investigate Crane's *The Red Badge of Courage* in terms of Deleuze and Guattari's concept of "Becoming". It examines the impacts of "Becoming" on individual's mind and behaviors, and also the impacts of "Subjectivity", "Body without Organs", "Desiring-machine", and "Death" on the main character in the novel. Identity is gone when there is no stability for it, and people are identified through their becomings. *The Red Badge of Courage* is an epitome of man's struggle in search of way to establish his identity in a complicated situation. The article investigates the way each individual loses its individuality by becoming; it also exhibits a more analytical view on the process of subjectivity produced by emphasizing the operation of body without organs and desiring-machine.

Keywords: Becoming, Identity, Subjectivity, Body without Organs, Desiring-machine, Death

### 1 Introduction

"The term "becoming" is a part of a critique of Plato. In Plato, the concept of "becoming" (French :devenir) means to be in a state of change. According to Deleuze, a becoming occurs in a site where many stratifications interact. It is a direction within intersections, but a direction which is not fully controlled, either consciously or unconsciously by the person. Becoming is in-between space from which it arises. Deleuze and Guattari suggest that in the spaces between strata there are loopholes that allow persons or groups to develop in ways which are not fully determined by the antecedent state of that person or group" (Due 141-142). According to Deleuze, "becoming passes between points, it comes up through the middle. A line of becoming has neither beginning nor end, departure nor arrival, origin nor destination. A line of becoming has only a middle. The middle is not an average. A becoming is always in the middle. It is the in-between" ( *A Thousand Plateaus* 293).

According to Deleuze, "a becoming is a general type of process. It is a composition of activity and passivity, such that it is undecidable what a person does and what simply happens to that person. It is a process that integrate into itself the parameters by which it makes sense and becomes meaningful. The becoming is a movement and the question for the individual is whether to continue or to interrupt it. According to Deleuze becoming, designates for any individual a process of alteration that changes that individual's most basic relation to the world

and to itself" (Due 141-142).

For Deleuze, "identity itself is always in motion: the identity of the individual subject, pressured from all sides by forces that will make him or her but also the collective subject, pushed together through environmental, governmental or social forces, or coming together in a resistance to these. In Deleuze's opinion, identity is always in motion, no matter how rooted it seems or how fixed. Not only that, but all identifications are in motion, since any fixed

state of an object is merely a stage of apparent rest before another change. If we pick up a coffee mug and look at it, we can have no doubt that it is a fixed object in time and space. It is, in fact, fixed to the extent of being brittle. It will smash if we drop it, and it's

'essential' identity would be at an end. What we are really looking at, however, is a moment (no matter how long)

of apparent rest in the life of its molecules and atoms. It was once wet clay, formed and shaped, glazed and fired under pressure. It continues to change, cracks and fissures forming on its surface, until we break it, when it will be tossed aside as rubbish, returning it to the earth. This 'fixed' object in space is also a fixed object in time (Deleuze called this an 'objectile') only in as much as we isolate it in our minds from the continual change of the universe. If identity is always in motion, it is always coming into being, a never ending project of *becoming*" (Martin-jones 61-62).

Stephan Crane (1871-1900) lived only twenty-eight years. In that time, he earned a reputation as a great American novelist, poet, and short story writer, and became a respected war reporter. Crane's chosen profession as a writer helped to spark a revolutionary change in American literature. He published his first novel, *Maggie: A Girl of the Streets*, a grim, Naturalistic novel about an impoverished woman in a desperate situation. In 1894, he had finished *The Red Badge of Courage*, his best known novel about a soldier's experiences in the Union Army during the Civil War.

### 2 Discussion

In the novel, *The Red Badge of Courage*, we see becoming in the main character, Henry Fleming. There are many reasons that Henry changes during the war. At the beginning of the story, he seems to indulge in his dreams. He is a young boy from the North of the U.S.A, who believes that war does not happen because of historical reasons and war is impossible because people have become more civilized or more timid. He has no other choice but to go to the front. He remembers that he had told his mother that he wanted to go to the front; thus he enlisted in army privately. He tried to prove himself that he would not run from the battle. He condemned the generals. He had great anxiety in his heart and struggles in his mind. He was depressed and grim. He wished that he could stay and work on the farm instead of joining the army. He keeps on telling himself that he was not destined for a soldier. He suddenly remembers that he has not desired to join the war, and it was the merciless government that had dragged him obligatorily. Henry has a romantic vision of war as a "sort of a play affair", and he despairs "of witnessing a Greek like struggle", fears "the throat-grappling instinct has been effaced"; in short, Henry has a callow and unreal view of war. There is no place to run in real life. Although he attempted to escape but he accepted life and his responsibilities. On his way, he saw a soldier's corpse. Finally, he decided to become another man because he had learned how a man would be made in the wars. He saw his salvation in this changing. But when the war starts, he thinks that it is better to flee. But he forgets everything about himself and he feels that he is a part of his country and he cannot flee. Some moments later, the captain's company is killed at the early stage of the battle. A soldier near him throws down his rifle and flees; he does not think at all, but simply acts. He throws

down his gun and flees. The soldier is not ashamed of his act of cowardice. He runs like rabbit. Fleming has become an observer. He watches the behavior of the soldiers around him and acts like them. On his way, Henry comes across his friend, Jim Conklin, who had been killed because of his wounds. There was struggle between him and his doubts again. These incidents has made Henry think again. He has decided to fight and to show that he is a man of experience. He intends to overcome the obstacles. His attitudes towards the world is changed. During the war, he has

noticed that it's better to go toward the unpleasant situations. He feels that he is filled with a new confidence. He intends to challenge the officer who had said the soldiers "mule drivers", and "mud diggers". He has decided to move, else he would be killed. Therefore, he tries to hold the flag firmly. After the victory, he feels that he is a good soldier. He found himself capable of profound sacrifices. He had thought that bullets are the only things that could prevent him from reaching his aims. Now, He is able to control his fears. He finds that the world of battle is a grotesque and fatal one. In the course of one frightful day, Henry achieved a profound understanding. Henry has learned that life is not dream. He has changed now.

### 2.1 Becoming in *The Red Badge of Courage*

In the novel, we see that Henry changes in the middle of the war. So, "becoming" occurs in the middle of the war for Henry. It was Henry who has undergone a "becoming" in the middle of the war; there have been unavoidable conditions that Henry could not flee from. He could not even come back home. Because if he came back home, his mother would oppose him rather than support him. Because he remembered that when he volunteered, it was a pang at his mother's helplessness for his departure and her gift of black berry jam. He was ashamed of looking back at her tear-stained face as she knelt among the potatoes parings. He wanted to come back home in glory. He acquires maturity and self-awareness. He is sufficiently matured by his experiences with terror, anguish, anger and his suffering of his wound to deserve him into manhood. The process of becoming starts when he begins to believe that, a faith in himself had secretly been blossomed. There was a little confidence growing within him. He was now a man of experience.

According to Deleuze, "a becoming is a general type of process. It is a composition of activity and passivity, such that it is undecidable what a person does and what simply happens to that person. It is a process that integrate into itself the parameters by which it makes sense and becomes meaningful. The becoming is a movement and the question for the individual is whether to continue or to interrupt it". It means that becoming is not just important, moral principles are important and a becoming is a constitution of specific actions which do and do not. What a person does and what happens to that person are inevitable. Becoming causes to create conditions which these conditions combine together and this new condition is meaningful and acceptable. If this person expresses, or shows becoming apparently, it has had becoming in its brain. For Deleuze, "becoming designates for any individual a process of alteration that changes that individual's most basic relation to the world and to itself". Deleuze believes that the change is not due to the person taking on a new profession or falling in love or suffering from grief, although such events can trigger a further process of changes that may develop into a becoming. Since a becoming is fundamentally unpredictable because it does not flow from an antecedent state. The changes that a person undergoes in becoming can perhaps best be characterized as a process of absorption. A person is absorbed in an activity or in a situation and this increasing absorption changes him or her" (Due 142). We see Henry Fleming's becoming either in his point of view or his actions. He is doubtful to continue or interrupt. If he continued, he would be killed. If he interrupted, he could not come back his home. The events in the story shows Henry's vacillation between certainty and uncertainty. There is conflict between ideals and reality. But he has to continue and in a moment when he can see that the color bearer is getting killed, and he decides to hold the flag and to fight for his country. Here, as the rival color bearer dies, Henry is reborn. What Henry does, is unpredictable. Because he desires to run but when he sees that his friend (Jim Conklin) has been killed, his regiment has retreated, and many soldiers have been killed, he is determined to hold on to the flag.

When two friends grabbed the flag from the dead color bearer, Henry pushed Wilson away to declare his willingness to further risk himself and it makes the outcome unpredictable. He finds that he is a part of this regiment and this country.

According to Deleuze, "what changes in becoming are the person's priorities and general sense of his or her place in the world. According to Deleuze, becoming relates directly to bits of thought and social reality" (Due 143). We see that after some struggles that Henry has had in his mind, he concludes that he should change. First of all, he changes his mind. He believes that he is capable of making his destiny. According to Deleuze, "becoming defines immanence as an infra-symbolic realm in which not only parts of the physical environment but also the social and symbolic world surrounding it can be transformed into a component of its development without being mediated through a representation. Becoming is thereby a process of making oneself select and be affected by forces and parts of the environment that one would normally exclude" (Due 143). Here we see that those who had called the soldiers, specially Fleming "mule drivers" and "mud diggers" they have been changed too Fleming's becoming occurs here. Because he has been greatly affected by the war. Henry's identity is changing. He used to be a naive boy who lived in a village with his mother. He was a student. He was affected by newspapers, the gossip of the village and forced to enlist. He did not know himself very well. He was doubtful to stay in, or to run from the war. He did not have a stable opinion about war. This was Henry's state before his changing. This was his fixed state in time and place before changing. This was what Deleuze call 'objectile'. Henry's identity changes at the end of the story. He feels proud of himself. He has reached to his self-awareness and his identity is formed by his oppositions in the past and in the present. He has redeemed himself by adopting a new, more heroic identity.

According to Deleuze and Guattari, "identity is created only by "reactions by others to what are seen as characteristics" (Martin-Jones 64). According to Deleuze, the individual, be it a phenomenon, a quality, a concept, a person or a species is inseparable from individuation" (Weinbaum 25). For Deleuze, "it is important to note that becoming is inherently complex and intractable because it is a progressive determination. This means that determination of trajectories does not take place at all once but in a succession of determining events. Every such event is selective in the sense that subsequent paths and events are indeterminate before the event took place. Becoming is inherently non-deterministic; its outcome can't be predicted in the general case" (Weinbaum 28). In this story, we see that Henry goes beyond his mind and his village. He goes to the front to see the real war, to know himself. Henry is a person who is not separable from his identity like the other people. Henry's becoming happens during such events like, his friend's (Jim Conklin) death and the other soldiers' death, his desire to run from the front, retreating of his regiment, the regiments' generals calling the soldiers, "mule drivers" and "mud diggers", and death of the color bearer and other soldiers. Jim Conklin had been killed for all his bravery. When Fleming finds himself among a troop of wounded soldiers, he is able to see that there is a gap between how these soldiers have been acting and how he himself used to acts. He wonders how he should stare at the faces of the men around him. So, he becomes ashamed and self-conscious only when he finds himself the object of the other's gaze. Fleming is filled with shame when he flees while his comrades fighting. Hence he must be a coward.

Henry is wounded with the butt of a gun, not with a bullet. Here Henry builds his courage. He starts to set aside his fear. When he carries the regiment's flag, he distinguishes himself through his courage on the field. When he comes across some wounded soldiers, he feels ashamed. Because of his shame Fleming wishes

that he too had a wound, a red badge of courage ; such a wound would give him a justification to cover his guilt .When he returns to his regiment with a wound by a plausible explanation for his absence, Fleming is welcomed by his comrades. In fact, they treat him as a hero. These incidents has changed Henry. It is not predictable at all from the beginning of the story that Henry would become the hero of the war. Because he had low self-confidence. In *A Thousand Plateaus* , Deleuze and Guattari say that " becoming is involutory , involution is creative". The evolution for Deleuze and Guattari is 'involution', something spiraling inwards, entangling and interweaving" (Ballen 30).

According to Deleuze , " as one changes, one also creates change to the surrounding. Individuation is full of factors of change , coincidence and accidents beyond control; it is fluctuation , like waves taking a shape of the rock on a shore , never-stopping, sometimes in a strong wind , sometimes in a dead calm. In this differentiation percepts work as forces and affects as becomings" (Ballen 32) . Here, it is the climax of Henry's becoming, a becoming which is a stage of evolution for Henry. Moving near the flag made Henry feel that he is a savior of people and an appealing cry went from his mind to go forward. He moves from darkness of war toward lightness of victory. Henry has reached from immaturity to maturity, from doubtfulness to assurance, from cowardice to courage.

## 2.2 Subjectivity in *The Red Badge of Courage*

According to Deleuze "subjectivity is derivative to the expression of thought (Semetsky 20).“ subjectivation is the *relation* to oneself . Subjectivity is always posited as collective and plural”. Subjectivity is being produced in a process of individuation which is always already collective , or as Deleuze says,“populated" (Semetsky 2 - 3). In Deleuze 's term, " this in-between perpetually in progress, between yesterday and tomorrow, between here and there, between before and after constitutes becoming-other.

According to Deleuze , the self would be defined as a singularity, that is, the one who , in terms of real-life events, may have experienced separation and probably even isolation as a precursor to individuation. This singular self , for Deleuze and Guattari, is a haecceity-or thisness. The haecceity is an event , that is a singularity in a dynamic regime of multiple transformations. According to Deleuze , the sense of the self as singular is derived from the individuation not limited to just a person but encompassing the whole event in a context described by Deleuze as " a draft , a wind, a day, a time of day, a stream, a place, a battle , an illness . It is an experiential situation distributed along the space-time continuum where "something [ is] passing through you". The self "consists in choosing choice, [therefore] is supposed to restore everything to us". To restore , as Deleuze uses the term, means to have a freedom to choose, that is not to go back to the old, but to be able to make a choice *per se* a mode of existence "( Semetsky 12-13 ) .Henry knew wars as far away phantom and considered them they have heavy crowns and high castles. He thought that a part of the world's history belonged to the war. But he sometimes thought that the period of war disappeared forever. He considered the war as a kind of a play affair. He thought about the next dangers that he might face. He tried to stand on his feet but he couldn't. Whatever he learned about himself was useless. As he walked along in careless line of his regiment he was stern and disappointed. Suddenly he thought that it is better to get killed and end his troubles. He decided to glance the war's dragon and then he thought that it is better to flee. First of all Henry thought that it is impossible to occur war. He looked on war with distrust. He believed that battles belonged to the past. He did not take for serious war. He was timid and doubtful. He had low self-confidence . But we see that in the process of becoming and

producing a new individuality Henry became a new man with a new point of view. He saw the real war and found that what the real war is. Becoming is not for a specific person in a specific place. Becoming may happen for everyone in everywhere . Henry experienced separation and isolation from his mother and village and his regiment. These incidents create a new identity for him. This new identity makes him unique. Henry reaches to the threshold of a new self. This is haecceity or thisness. This haecceity or uniqueness makes numerous changes in Henry. This new self makes him to be a member of a group. He understood that man's courage appears from self-realization. So, he must participate as a member of the group. In this novel, according to Deleuze, the sense of the self is not limited to just Henry. It is containing the whole event. Here, the sense of the self who is containing the whole event described by Deleuze as a battle. The self has a freedom to select. It is the moment that Henry was doubtful to flee or not. he should kill the enemy or to be killed by the enemy or when he gives his wound with the butt of a gun, he could tell the truth but he preferred to tell a lie. So, He was free to select one of them. He was free to select a way of existence. For Deleuze , " the subject is never complete , because it is always in the process of becoming .The Deleuzian subject is capable of political actions precisely because it is embodied in relational networks with both others and its environment and is therefore not individualistic but collectively constituted " (Stark 132) . According to Deleuze," the subject is necessarily changes (Stark 135). Subject is a product of the world it contains (Stark 141). By situating the subject in time , it is able to differ from itself perpetually (Stark 143). According to Deleuze, the larval subject can't be the foundation of thought , because it is only the effect of other processes; it is the site rather than the source of thought " (Stark 152). Henry is not complete , because he has always been in the process of becoming. It means that he keeps on changing his attitude towards the world and his surroundings during the war. Henry has been capable of fighting actions because he has been in relation with the other soldiers, the commanders and generals. When Henry joined the group of wounded soldiers, he was forced outside of his own thoughts and emotions. Fleming must define himself in relation to these men. So, the collection of environmental and personal factors made Henry collective. According to Deleuze , " the real subject is set in motion by sensation , expresses Ideas , falls into actual identity (Williams 185) . In the process of individuation , the individual is put in touch with a differentiation of all Ideas and with a transformation of an actual situation" (Williams 188). Henry himself is surely changed . Henry has under the effect of his surroundings. His world has been limited to his mother, the merciless government, his warriors, his commanders, the wounded people, the killed people , and the battle. By placing Henry in the period of war, he has been contrasted with the old Henry , permanently, because before the war, he used to live in his dreams. He had been in incessant conflict with his own ideas. He didn't have a static character. But during the war, he is changed. At first Henry was an immature person. Because he was not thoughtful. We see Henry in this story by expressing his different ideas, different sensations before and during the war.

## 2.3 Body without Organs in *The Red Badge of Courage*

According to Deleuze and Guattari , " the best way to understand a body is to ask what it is capable of. Jacob von Uexküll in *Mondes animaux et monde humain* describes the relation of a tick to its environment. According to Uexküll a tick is capable of only three things: it can climb, fall, and dig. A tick is capable of being affected by sunlight , so it climbs up a tree to the end of a branch . A tick is also capable of sensing warm-blooded animals. When it does, the tick drops to the animal. At this point, the tick begins to search for a suitable place to burrow . When it finds a place it burrows its head under the skin and begins

to draw blood from the animal. The effects that this tick is capable of are the result of the relations of its various parts. For example, the tick's body must also be dense enough to fall relatively straight. If the tick's body caught too much air as it fell, it might fall too slowly to land on the passing animal. If the tick were too heavy its landing on another animal might be noticed. If the tick's body were too broad it might not be able to move through the thick fur of some animals to get to a place where it might dig. The same thing might occur if the tick's body were rough instead of smooth. The tick's body is thus the particular relation of motion and rest peculiar to it and its place in its environment and powers granted to it by this relation to affect or be affected by its environment. The affects themselves are limited by two thresholds: a maximal and a minimal. Deleuze and Guattari speak of this range between maximal and minimal thresholds in terms of intensity. The minimal threshold of a tick would have an intensity of degree zero. Suppose a tick finds itself in a particularly desolate segment of forest, or at least no animals appear within its drop zone. During these times the tick sleeps. It cannot exercise any of its affects so it enters a period of stasis. This is the tick's minimal threshold of intensity. The tick achieves its maximal threshold of intensity when it is full. That is, when the tick has exercised all three of its affects to their fullest extent, the tick can suck no more blood, and it dies.

Deleuze and Guattari take their cue from Spinoza in conceiving of a body. For Spinoza a body is an infinity of parts (or modes) with a fixed relation of motion and rest among its various parts, and this relation of motion and rest allows one body to be distinguished from another. 'Bodies are distinguished from one another in respect of motion and rest, quickness and slowness, and not in respect of substance'. A body is identified by the unique relation of its parts to one another. The identity of a body is the result of a unique intersection of modes that relate to one another in a peculiar and limited way. If this relation among the parts is changed, the specificity of the body is lost. For example, upon returning from a walk through the woods with my dog I discover a tick attached to the dog's ear. If I take a lighter and burn the tick so that its hard outer shell melts and its legs shrivel and curl under its body, the tick no longer maintains the same relation of motion and rest among its parts. As a result it is no longer capable of the same affects as it was prior to its burning. This new relation of motion and rest among its various parts create a new body. This new body would still be referred to the original tick, but the unmistakable change would also be registered by calling the new body 'burned tick' or even 'dead tick'. This extensional relation of parts Deleuze and Guattari call a body's longitude. It means that the body (taken as a composition of infinite particles) is defined in terms of its rest and movement. The affects that extensional relations make possible are called a body's latitude. It means that the body is defined in terms of its capacity to affect other bodies and in turn be affected by them. The capacity for affection is not fixed but elastic. Affects increase or decrease a body's power to act. This takes two forms: sad passions result from a decrease in the body's capacity for action, whereas joyful passions are the result of an increase. A body's individuality is determined by its longitudinal and latitudinal coordinates. For Deleuze and Guattari an analysis of the tick's affects, what sort of body could produce such affects, and the limits of those affects is the best way to understand the tick. All bodies have limits. The limits of anybody are produced by that body. In other words, for a body to have particular affects it must be organized in a particular way. This limit that is, on the one hand, produced by the organization of a body, and, on the other hand, precludes the body from exceeding it, Deleuze and Guattari call the 'body without organs'. Sometimes Deleuze and Guattari use the term 'full body without organs' is used to refer to the maximal limit, it means that the full body without organs is in a state in which it can maximize its potential to form connections but more often 'body without organs' is used to refer to both the

minimal and maximal limit" (Adkins 125-129). Here, the researcher surveys Henry's characteristics before and after the war. Before the war,

Henry is in his dreams about the war. He considers himself the defender of people. This is Henry's minimal intensity. He thinks that he must be a hero. When the regiment approaches to the field of battle. He thinks that it is better to flee. He is frightened. He is filled with great anxiety. He is stern and disappointed. But at the end of war, when he sees that his regiment is retreating and many soldiers were being killed. He held the flag and persuades the soldiers to fight and to go forward. This is Henry's maximal intensity. After the war he feels happiness and calmness. He thinks that he is a good soldier. Holding the flag has been Henry's longitude, and Henry's influence on his regiment and the effect of environment on him has been Henry's latitude. This is Body without Organs. When Henry makes his regiment win, it is called full body without organs. Sad passions occur when he witnesses his friend's (Jim Conklin) and the other soldiers' death. He becomes anxious or when he came back to his regiment after fleeing, he feels that he has done something wrong. He is filled with shame. Henry knows that his greatest despair has been that when he was alone and isolated from the rest of the army. But joyful passions has made him feel manhood, experienced, skilled, useful. For example, when he carries the flag and encourages the soldiers to go forward and its outcome is victory. He becomes happy.

According to Deleuze, "the body without organs can never be entirely free of the sedimentation of social coding, because it must articulate itself against (and thus exist within) the structures that organize the world" (Stark 159-160). Henry was not free from social coding. Because he did not want to come to the war, the merciless government forced him to enlist. War forced him to kill the other people or to be killed himself.

According to Deleuze and Guattari, "the Body without Organs is non-productive; nonetheless it is produced, at a certain place and a certain time in the connective synthesis, as the identity of producing and the product" (*Anti-Oedipus* 8). Here, Henry is considered as a nonproductive individual. Because he is produced during the war. He has shown his talents and potentials during the war. He has sacrificed himself for his country in a certain place and at a certain time.

#### 2.4 Desiring-machine in *The Red Badge of Courage*

Deleuze and Guattari argue that "desire attaches itself to part-objects. Deleuze and Guattari's typical example of this relation is a baby sucking at her mother's breast. For Deleuze and Guattari the connection made here is not a connection between mother and child. Rather, it is a connection between mouth and breast. Moreover, this connection is not a connection born out of a lack in either the mother or the baby. On the face of it this claim seems absurd. The Body without Organs breaks these connections. In the case of the child at her mother's breast, not only is a connection made that allows the flow of milk from breast to mouth, but also this flow is periodically broken as the child stops sucking and swallows. This break is the result of the relation of motion and rest among the parts of the child's body.

The child's body is such that it cannot suck indefinitely. It must break the connection in order to swallow. This oscillating cycle of making and breaking connections Deleuze and Guattari call a 'desiring-machine'" (Adkins 133-134). According to Deleuze and Guattari, "desiring-machines are binary machines, obeying a binary law or set of rules governing associations; one machine is always coupled with another. This is because there is always a flow-producing machine, and another machine

connected to it that interrupts or draws off part of this flow ( the breast- the mouth ). And because the first machine is in turn connected to another whose flow it interrupts or partially drains off.

Desire causes the current to flow, itself flows in turn , and breaks the flows. Hence the coupling that takes place within the partial object-flow connective synthesis also has another form :product/producing. Producing is always something “grafted onto” the product ; just as every machine is a machine connected to another machine (*Anti-Oedipus* 5-6). *Partial objects are direct powers of the body without organs , and the body without organs, the raw material of the partial objects”* (*Anti-Oedipus* 326). Henry, flag, regiment , war, each of them is considered as a machine. When Henry joined to the army and when he held the flag, there was a reasonable desire. Henry’s desires were that he wanted to examine himself, see the real war, save his regiment and soldiers. There is a connection between Henry’s thoughts , dreams, the war’s reality and flying the flag as machines. These machines connected to each other. They have created a desire for Henry to enlist and to go to the front, because he considers himself as a defender of people and he considered the war as the far- away phantom. Courage has connected Henry to the flag. Fear, anxiety , courage are “body without organs” and these machines have made Henry go forward. Of course, in some moments he stopped but he continues and becomes a hero. This is a desiring- machine. The product of this desiring- machine was the victory of Henry’s regiment and offering the red badge of courage to Henry.

In one part, Henry’s desire was destroying either Henry or his regiment. When Henry sees the soldier’s corpse , his enthusiasm vanishes or when the war starts , many soldiers decide to flee like Henry. That turns catastrophic for the regiment. But the officers’ shouting and punching made them stay. So, Henry’s desires are controlled in an acceptable way. Henry and Wilson notice that the color bearer has been killed , so they try to grab the flag, but Henry succeeds in taking the flag.

### 2.5 Death in *The Red Badge of Courage*

Deleuze and Guattari , are arguing that" the death instinct is a recent invention, the result of the the way capitalism constrains desire. For Deleuze and Guattari the death instinct is a function of Oedipus(The hero of Sophocles’ play: *The Oedipus Rex*) .As Oedipus slowly migrates from the limit of the socius in the primitive society , to residing in the person of the sovereign in the despotic society, and finally to representing desire in an Oedipal complex in capitalistic society, the death instinct migrates along with it. Or better, death can only become an ‘instinct’ where the subject is constituted around a lack. According to Deleuze and Guattari whenever desire is interrupted , this is death" (Adkins 178-181). As Oedipus, when Henry and the other soldiers move from their home, their villages or cities to defend their state in the battle to show their courage to their regiments’ generals, the death instinct walks side by side along with them, and it manifests itself through the sight of the body of a dead soldier who lay upon his back, staring at the sky. The flag that Henry carries symbolizes the group’s loyalty, it does not belong to the living men. The corpse from whom they grab it tries to warn Henry and Wilson that to serve the flag is to die but the warning seems useless. For Henry, death becomes an instinct, when he feels that he does not have enough self-confidence; for him, courage, hope and war is an expression of death and grotesque disorder which produces corpse. He did not have any enthusiasm to continue. This is zero intensity or minimal limit for him .When Henry feels that his desires are finished and flees the battle, he is closer to death. It is a personal death for him. Henry has been experiencing death when he has moved from minimal limit to maximal limit. It means that he has decided to put aside all his disappointments and to do an acceptable action . It is a becoming. Henry ’s lack is that he had

low- confidence . He didn’t know himself and war’s reality very well and used to be in his dreams. When he is desperate, hopeless ,frightened and separated from his regiment, it is death for him.

### 3 Conclusion

According to Deleuze and Guattari ’s theory of becoming , it occurs in a space between spaces , in a person between people and there are unavoidable condition that a person or groups can never flee and these conditions are not determined by previous state of the person or group. It means that the person’s changings are not controlled , either consciously or unconsciously. The changings are inevitable. Becoming causes to create conditions which these conditions combine together and this new condition is meaningful and acceptable. If this person expresses , or shows becoming apparently, it has had becoming in its brain. Different events cause changes but changes are unpredictable because changes occurs without previous state of a person and these changes cause the person to be absorbed to do an action. Becoming is a process in which a person is under the influence of environment forces that she or he was not before.

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## IMPLEMENTATION OF TARGETED SUBSIDIES PLAN AND EVALUATION OF PUBLIC'S SATISFACTION IN ILAM PROVINCE

<sup>a</sup> ALIREZA SHEIKH MOHAMADI, <sup>b</sup> ALIREZA GOLSHANI

<sup>a</sup> Department of Political Sciences, Shahreza branch, Islamic Azad University, Shahreza, Iran

<sup>b</sup> Associate professor, Department of Political Sciences, Shahreza branch, Islamic Azad University, Shahreza, Iran

Email: <sup>a</sup>alireza\_1226@yahoo.com, <sup>b</sup>agolshani41@yahoo.com

**Abstract.** This study intends to investigate and evaluate the general public satisfaction level with the implementation of the "Targeted Subsidies Plan" in Ilam Province. Questionnaires used as the tool of information gathering and distributed amongst people who received subsidies payment and after a validity and reliability study; this information was used in this study. The results obtained from this investigation shows that this plan has been unsuccessful in practice, and the satisfaction level of public is low. Also this study shows that there is a meaningful relationship between the dependent parameter of this study, which is the public's satisfaction level, and independent parameters in the amount of cash subsidies paid with the associated cost of the program, weak management and lack of required long term vision and planning.

**Keywords:** Subsidy, Subsidies Reorientation, Targeted Subsidies, Satisfaction, Ilam Province

### 1 Introduction

One of the most common economic policies in the developing and even in the developed countries is the deployment of a number of appropriate supportive measures and payment of subsidies which today is regarded as an important tool in setting economic policies in order to protect and support vulnerable sections of the society as well as special production sectors.

The aim of implementation of such policies can either be to support those consumers who are unable to purchase particular goods or vital provisions, or to possibly support those producers who are unable to compete with other competitors due to increase in their total costs.

In Iran, during the last three decades, the government with an equalitarian attitude and without a predefined framework has subsidized sectors such as imports, production and distribution as well as subsidizing consumed goods such as energy carriers (petrol, gasoline, oil and gas), bread, water, electricity etc. and has tried to supply consumers with inexpensive goods at the lowest possible price to its people.

Most experts believe such payments have imposed a heavy financial burden on the government, and in practice it has failed to reach the targeted consumers which in effect have resulted in a type social injustice. This is due to the fact that the middle and upper classes of the society have received a bigger portion of these subsidies in comparison to the lower classes. Therefore, on the path to achieve social justice and supporting the lower classes of the society and vulnerable people, resolving problems associated with this untargeted subsidies payment system, reforming this system or targeted subsidies plan under the framework of economic development program was put on the agenda of the ninth government of the Islamic republic of Iran. In (2010) the parliament passed the legislation and in 1389 (2011) the 10<sup>th</sup> government implemented this legislation. Paying attention to the fact that implementation of this plan is considered to be one of the major plans in the public policy making sector after the Islamic revolution of Iran; the aim of this study is to evaluate the level of public satisfaction of its implementation in Ilam Province.

### 2 Theoretical Principles

#### 2.1 Definition of Subsidy and Reasons for its Disbursement

The definition of subsidy by the view of European Accounting System (1) is defined as gratuitous payments by the government

to producers with the aim of affecting production level, prices or to reward producers. (Farzin, 2010)

Subsidy in economic terms is defined as free of charge aids and financial contribution by the government in particular periods of time. (Farhang, 1982)

Subsidy is transfer of resources by the government to purchasers or sellers of goods and services in order to reduce prices for purchasers or to increase selling price or production cost and services for the producers. In this case, the net effect of subsidy is to support producer and consumers simultaneously. (Federal Financial Interventions and subsidies in Energy market, 1999, 17)

Subsidy is a term used for any type of transferring payment aiming to support low income classes and to improve distribution of income from government's treasury and can be paid into the treasury directly or supplied in form of cash or products to families and producers of goods and services. (Management Organization, 2002)

Different organizations pay subsidies for variety of reasons. Payment of subsidies by governments is no exception. Governments all across the globe pay subsidies in order to reach a set of special targets and in line with their general policies. For example, some governments pay subsidies to low income and deprived section of the society in order to establish social justice and a fairer society. In some states, subsidies are paid to people as a way to secure the future of the ruling political party and in other countries; subsidies are paid by powerful opposition of the government in order to overthrow the ruling system. In some other cases, subsidies are paid by foreign states in order to empower the opposition and to weaken the central government. (Sadegh Feizi, 2011)

Multiple problems of common and traditional subsidies payment systems including inefficient or non-optimal allocation of resources, high consumption rate, ineffective production, trafficking of subsidized goods abroad, destruction of environment etc. are the causes of ineffectiveness of this system and the decision by policy makers for reorientation of these subsidies.

#### 2.2 Subsidies Reorientation or Targeted Subsidies

The practice of targeting the subsidies or subsidies reorientation requires determination of the eligible and ineligible people to receive supportive programs, economic aid and social support by the government (Tootoonchi, 2009) In other words, during subsidies reorientation, groups or sectors that should receive governmental supportive programs based on special predefined criteria and priorities are determined and will be the beneficiaries. Selection of eligible people and groups within consumer and production sectors is a necessary required condition in implementing this policy. The success or effectiveness of subsidies reorientation policy is subject to the fact that low income and vulnerable groups have the lowest responsibility in securing the financial capital required and at the same time are the highest beneficiary of released resources and in return, capable groups of the society give the most help in securing the financial capital needed and will enjoy the least or none of the supportive programs offered by the government. (Zarvar, 2006)

After examination of domestic economic structure, policy and decision makers in the ninth government categorized the problems associated with the structure of domestic economy in seven categories (efficiency, taxation, backing, valuation of national currency, distribution of goods and services and subsidies) and by focusing on these categories, drafted a plan known as "Economic Development Plan" and submitted it to the Parliament in 2008, and the parliament designated a special commission to review it. In 2010 this plan was approved by the parliament under the title of "Economic Development Plan for Organizing Domestic Economic Structure". Targeting and

reorientation of subsidies payment is the key subject in the economic development plan that was submitted by the ninth government to the parliament. The Islamic Parliament of Iran, due to the huge significance of this issue formed a special committee and after many discussions and many sessions reviewing it, this bill that included 16 articles and 16 remarks was approved in 2010. The "Targeted Subsidies" legislation was finally implemented by the government in 2011, after nearly a year of delay.

### 3 Literature Review

There has been no comprehensive research on the topic of subsidies reorientation and comparison between different models of public policy making and evaluation of the level of public's satisfaction. However, there has been some published studies and research on the topic of subsidies reorientation and other related issues and some of these are as follow:

#### 3.1 Domestic Studies

1- In an article titled "Subsidies, Development and Poverty" published in 2006, Dini Turkamani studies two conflicting views of Neo-Classical and Institutional Development, and tries to assess their respective adequacy based on historical experiments of implementation of structural adjustment for economic stabilization policies within a predefined framework. He then tries to adjust these with special economic conditions of different economies, including Iranian economy. (Turkamani, 2006)

2- Mesbahi Moghadam and colleagues (2010), in an article titled "A study on Pathology of Targeting Payment of Subsidies", describes different levels of subsidies reorientation, reviews predicted problems and difficulties and concludes that reorientation of subsidies is a necessary measure to reform the economic structure of Iran ( Mesbahi Moghadam and colleagues ,2010).

3- Shahmoradi, Mehr Ara and Fiazi (2009), in their study titled "Price Liberation of Energy Carriers and its Effect on the Welfare of Families and Government's Budget"; by using Input-Output Static Analysis method and data published by Iran's Central Bank in 1378, have investigated consequences of price liberation of energy carriers on the household income deciles and government's budget. They concluded that, 100% price liberation of all energy carriers' causes an increase of 0.08% in price index of consumers and complete price liberation of energy carriers' results in an increase of 0.108% of consumers' price index. This study also investigates the effects of implementation of such policy on government's budget, and shows that an increase in the prices of energy carriers or complete price liberation results in the reduction of budget deficit of the government. This is obtained when the government has completely compensated the resulted reduction in the welfare of the society by cash payments( Shahmoradi, Mehr Ara and Fiazi, 2009)

4- Heydari and Parmeh (2011) have evaluated the consequences of the reform on the prices of bread and energy carriers on families' expenditure. This study has concluded that by eliminating the subsidies of bread and energy carriers, the expenses of urban families will increase by a minimum of 33% compared to minimum increase of 40% for rural families. (Heydari and Parmeh, 2011)

5- Rezaiepoor and Aghayie Khondabi (2012), in an article under the title of "The Effect of Imposed Shocks by Government's Subsidies Expenditure on the Real Consumption of Iran's Private Sector", investigate the long and short term relationships between the real consumption and imposed shocks by subsidies. According to obtained results in this study, they claim that during current inflationary recessionary conditions of Iranian economy, creation of negative subsidies shocks will certainly dramatically decrease the real consumption rate of private sector in the short term. This is due to the fact that the real income of people will decrease, which results in a reduction

of overall consumption rate of the private sector. However, due to the fast adjustment rate obtained from the model used, it has predicted that the effects of these shocks shall be resolved in the mid-term, and the real consumption rate of the private sector shall reach the expected equilibrium in the long term. (Rezaiepoor and Aghayie Khondabi, 2012)

6- In an article called "Subsidies: Achievements, Costs and Challenges", Zamanzadeh (2012) states that one of the most important achievements of subsidies reorientation is the reform and improvements to the energy consumption pattern and income distribution. On the other hand, the main challenges ahead are the resulting budget deficit of the government, increase in financial liquidity and high inflation rate. (Zamanzadeh, 2012, 132-108)

7- Islami et al., (2013), investigate the welfare effects of subsidizing electrical energy on the Iranian economy. According to three possible scenarios of price increase, cash payment of subsidies and simulation results of the model, the obtained results indicate that by implementing this policy the GDP of the country will decrease significantly and the economy will fall into a recession. Also by securing financial resources for these cash payments from surplus income of the government, taxation of electricity and income tax and incorporating them with the price increase policy, the GDP of the country is further reduced. The rapid rate of this reduction in GDP has a direct relationship to the price of electrical energy. (Islami et al., 2013,39-60)

8- Pezhoian and Rashti (2005) in their article called "Subsidies and the First and Second Degree Errors", defends the policy of reorientation of subsidies and believes that for a supportive system to operate successfully, it has to function objectively( Pezhoian and Rashti, 2005).

#### 3.2 Oversea Studies

1- Jensen and Tarr (2002) in an article titled "Commercial Policies" have investigated the increase in foreign currencies exchange rates and energy policies of Iran in 2003, by using a general equilibrium model. They have reached the conclusion that the structural reforms in three stated areas have resulted in significant gains and these gains have resulted in an increase of 50% of consumers' income. 7% of these benefits were due to commercial reforms, 7% due to reforms of the exchange rates of foreign currencies and 36% due to price corrections of energy carriers. In addition, applying a right subsidies reorientation policy can reduce the negative effects of price corrections on low-income sections of the society. If the obtained income is provided to all households (not only the low income ones) in the form of direct cash payments, this will have a significant positive effect on the income of poor households relative to their current status. Even the poorest of urban and rural households will experience an increase of 140% and 290% to their overall income respectively (Jensen and Tarr, 2002, 2760).

2- Son and Kakwani (2008) in an article called "Measuring the Impact of Price Changes on Poverty" have evaluated the effects of price changes of food products on poverty indicators in Brazil from 1999 to 2006. The calculated strains of poverty and the effects of total changes to prices on poverty are divided into income and inequality effects. In addition, this study determines a single price indicator for poor people, which in Brazil, this indicator has been used for such indicators of poverty count, poverty gap and poverty intensity. The results indicate that price changes in Brazil between 1999 and 2006 have been implemented in a way that benefited the low income households in order to reduce poverty gap between this section and the richer sections of the Brazilian Society. This study also indicates that poor people in Brazil experience a higher inflation compared to the rest of the society, however this effect has been reduced in the recent two to three years (Son and Kakwani (2008).

3- In their study by designing a GCE model, Kuster, Ellersdorfer and Fahl, have investigated energy policies with an emphasis on employment in Germany. In this model, the labor

market by considering two mechanisms of combating skilled-specific unemployment and electricity production technologies is described. This model has been used specifically for the purpose of analyzing capital and operating subsidies applicable to renewable energy technologies. The obtained results show that designating subsidies to this sector will not automatically result in lower emission. In addition, even if the reduction in total emissions is reachable, it is possible that due to the negative effects of a growth of the associated costs with this technology, these technologies will become inefficient. This lack of efficiency will result in an increase in unemployment of skilled and unskilled workers alike (Kuster.R; Ellersdorfer, I and Fahl, U, 2006).

4- Abooulein et al., (2009), in an article titled "The Impact of Pashing of Subsidies of Petroleum Energy Products in Egypt", by using a GCE model investigated the impact of gradual elimination of fuel subsidies in Egypt over a period of five years. The writers show that gradual elimination of fuel subsidies, without implementation of supportive and compensatory policies, in the referred period of this study, will reduced the GDP growth of the country by 1.4% annually and results in the reduction of welfare of all income groups. Elimination of energy subsidies also reduces the inequality of income and the wealth of the richer section of the society will be further reduced (Abooulein, E-laithy and kheir-E—Din, 2009, 162).

5- In their article, "Estimates of Energy Subsidies in China and Impact of Energy Subsidy Reform", Lin and Jiang (2010), after evaluating the amount of designated subsidies to energy sector via price gap method, in format of a GCE model and based on data from 2007, investigated the effects of energy subsidies reform on macroeconomics variables of the Chinese economy. Their results shows that under the scenario of complete elimination of subsidies, without redistribution of income, the country's economic welfare, GDP and unemployment level will decrease by 2.03%, 1.56% and 1.41% respectively. Under the scenario of complete elimination of

energy subsidies and redistribution of 35% of its resulting income to the economy, positive effects are observed in a way that, economy welfare, GDP and employment rate have all increased by 0.16%, 0.37 and 0.53% respectively. In the third scenario, in the case of redistribution of 50% of generated income from elimination of subsidies, economic welfare, GDP and employment rate all increase by 1.52%, 1.74% and 2.07 respectively (Lin, B. and Jiang, Z., 2010).

By reviewing the literature on subsidies reorientation in Iran and other countries, it appears that even though this issue has received limited attention by researchers, no work has been performed on the evaluation of public satisfaction level of implementing such policies and this topic remains neglected by academics and researchers, which in effects enhances the importance of this study.

#### 4 Research Methods and Information Gathering Tools

Surveying method was applied for this research. The information gathering method adopted was the data from literature and field study via distribution of questionnaires amongst the public. Questionnaires used in this study included two types of information, the first being general questions on age, education and income level, location of residence and such questions, and the second parts was designed to obtain information on parameters of this research, hypotheses and evaluation of public satisfaction level.

#### 5 The Validity and Reliability of Questionnaire

In this study, content validity method has been used. Hence by a detailed literature review, a completed understanding of the concepts of research parameters has been obtained and the set of questions have been designed in way that the questionnaires contain the required reliability and validity. For evaluation of validity of collected data, Cronbach formula has been used (table 1).

Table 1. Distribution of Questionnaires Alfa values of this Study

Parameter	Item Number	Alpha Value
Satisfaction of Subsidies Reorientation Plan	8	84%
Identification of Targeted Society	5	74%
Condition of people's welfare	7	76%
Inflation and Recession Levels Caused by the implementation of the Plan	4	70%
Consistency (or lack of it) of cash subsidies received with additional expenses caused by liberation of prices	3	76%
Condition of domestically produced goods	4	83%
Management of the Plan and long-term vision	5	75%
Questionnaire in General	36	93%

The level of calculated alpha for the questioner is 93%. This is due to the fact that all other calculated values have been above 70% for the calculation of this value, and hence can be concluded that it has the required validity and reliability level.

#### 6 Statistical Methods used in this Study

Statistical methods used were of descriptive and inferential nature, and have been adopted for analysis of obtained data by using SPSS software as well as descriptive statistical methods such as satisfaction indices of Mainland Weekend for the purpose of evaluation of satisfaction level of respondents. Indices of descriptive statistics such as binominal T1 Samples and Spearman's linear regression methods was adopted for accepting or rejection of each hypothesis.

#### 7 Targeted Group for Statistical Research

Targeted group for the purpose of Statistical Research of this study were people who received cash subsidies in Ilam Province. According to "Organization of Subsidies Reorientation", the population of this group is 547894 in this province. Based on Cochran's formula and Morgan's sampling table, 384 people were selected as the representatives of the specified group. Due to the high number of people associated with the specified group, a random approach was taken in selecting individuals. Also taking into account the high number of cities located in Ilam province, three cities were selected randomly. The cities selected were Ilam, Dehloran and Ivan. Questionnaires were distributed by taking into account the population ratio of these cities and inhabitants living in their suburbs (table 2 and 3).

## 8 Result of this Study

Table 2. Frequency Distribution of Respondent's Location of Residence

Location of residence	Distribution Level	Percentage
Urban	241	62.4
Rural	145	37.6
Total	386	100

Based on the findings of the study, 62.4% of the respondents lived in urban areas, and 37.6% were in rural areas.

Table 3. Frequency Distribution of the Satisfaction Level from Implementation of Subsidies Reorientation Plan across the Province

Satisfaction from Implementation of Subsidies Reorientation Plan across the Province		Very Low	Low	Medium	High	Very High
Satisfaction Level from Implementation of Subsidies Reorientation Plan across the Province	Frequency	146	74	97	50	19
	Percentage	37.8	19.2	25.1	13	4.9
Satisfaction Level from Specified Subsidies Payments to each person (455000 Rials)	Frequency	184	115	60	23	4
	Percentage	47.7	29.8	15.5	6	1
Satisfaction Level from the amount of Planning and Approval of Subsidies Reorientation Legislation in its Current Form	Frequency	153	91	101	48	27
	Percentage	39.6	25.9	21.8	9.8	2.8
Supporting Vulnerable people and Households	Frequency	119	91	101	48	27
	Percentage	30.8	23.6	26.2	12.4	7

Results obtained from Table 3 shows that the majority of respondents across the province had a very low level of satisfaction from the specified amount of subsidies payment designated to each individual as well as the planning and approval of subsidies reorientation legislation in its current form

by the Islamic Republic's Parliament. Majority of respondents also believed that the legislation offers very low level of support to low income individual and households (table 4).

Table 4. Frequency Distribution of Government's Performance in the First Stage of Implementing the Plan

Performance of the Government in the First Stage Of Implementation of the Plan		Very Low	Low	Medium	High	Very High
Satisfaction Level of Government's Planning of the First Stage	Frequency	158	74	68	50	36
	Percentage	40.9	19.2	17.6	13	9.3
Satisfaction Level of Government's Performance in the First Stage of implementing the Plan	Frequency	149	94	68	37	38
	Percentage	38.6	24.4	17.6	9.6	9.8
Satisfaction Level of Government's Notifications Regarding the First Stage of implementing the Subsidies Reorientation Plan	Frequency	120	115	77	60	14
	Percentage	31.1	29.8	19.9	15.5	3.6
The Success of Policy Makers and Government's Planners in Managing the Difficulties associated with the first stage of the Plan	Frequency	175	106	74	22	9
	Percentage	38.3	30.8	22.5	6	2.3

From the information presented in Table 4, it can be observed that the majority of respondents across the province have a low level of satisfaction of planning and implementation of the legislation as well as the level of notification provided by the

government. The majority of respondent also believed that the government has not been successful in controlling the recession in the market and management of problems associated with implementation of the first phase of its plan (table 5).

Table 5. Frequency Distribution of the 11<sup>th</sup> Government's Performance in the Second Phase of Implementing the Plan

11 <sup>th</sup> Government's Performance in the Second Phase of Implementing the Plan		Very Low	Low	Medium	High	Very High
Satisfaction Level of Government's Planning of the Second Stage of Subsidies Reorientation Plan	Frequency	138	128	81	35	4
	Percentage	35.8	33.2	21	9.1	1
The Success of Policy Makers and Government's Planners in Managing the Difficulties associated with the Second Stage of the Plan	Frequency	117	117	105	35	12
	Percentage	30.3	30.3	27.2	9.1	3.1

From the information presented in Table 5, it can be observed that the majority of respondents across the province have a very low satisfaction level from the government's planners and policy makers and believe they have not performed successfully in

dealing with problems and challenges of implementation of the second stage of subsidies reorientation plan (table 6).

### 9 Inferential Statistics

Table 6. Kolmogorov-Smirnov Test of Different Components of Study

Variable	k-s	Sig
Satisfaction of Subsidies Reorientation Plan	2.184	0.000
Identification of Targeted Group	2.184	0.000
Condition of People's Welfare	1.385	0.043
Resulting Inflation and Recession as the result of Implementing the Plan	2.696	0.000
Consistency (or lack of it) of cash subsidies received with additional expenses caused by liberation of prices	2.219	0.000
Condition of domestically produced goods	2.744	0.000
Management of the Plan and long-term vision	1.760	0.000

Paying attention to the data presented in the table above such as (Sig<0.05), it can be stated that hypothesis H0 is utterly rejected and hypothesis H1 which indicates that data input are not normal is accepted (table 7).

#### Hypothesis 1:

The level of public satisfaction from implementation of subsidies reorientation plan in the province is low

Table 7. Distribution of Respondents Opinions on Public Satisfaction Level of Implementation of Subsidies Reorientation Plan

Case	low	High	Average	Devation	Deviation in Calculation of Average Value	Significance Level of two line tests	t	df	Significance Level of the T test
Social Humanity aspects	0.88	0.12	15.05	7.35	0.323	0.000	-27.64	387	0.000

Results in Table 7 show that 88% of respondents believe that the satisfaction level of people in Ilam Province from subsidies reorientation plan is very low, low or average and 12% believed satisfaction level is high or very high. The average of this index is 15.5 and the t test for comparing these averages with a base of 24 shows that the obtained average in a meaningful way is lower than 24 (sig=0.000 and t=27.64). Therefore the satisfaction level of public in Ilam is at a low level (table 7).

#### Hypothesis 2:

There is a meaningful relationship between the identification of the targeted group and satisfaction level of public in Ilam province.

Table 8. Obtained Results from the relationship between targeted group and satisfaction level of people in Ilam province

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	Identification of the Targeted Group	0.777	0.0000

Results obtained from Table 8 show that there is a relationship between identification of the targeted group and satisfaction level of people in Ilam province variables (Taking into account (r=0.777 and sig=0.000 with an error of 1%, this statement is 99% true). Therefore it can be concluded that there is a meaningful and positive relationship between the identification of targeted group and satisfaction level of people in Ilam in regards to implementation of subsidies reorientation plan (table 8).

#### Hypothesis 3:

There is a meaningful relationship between welfare of the people and their satisfaction level of implementing the subsidies reorientation plan.

Table 9. Results for the relationship between welfare of the people and their satisfaction level of implementing the subsidies reorientation plan

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	Welfare of the People	0.573	0.0000

Results obtained from Table 9 show that there is a relationship between welfare of the people and public satisfaction level in Ilam province variables (Taking into account (r=0.573 and sig=0.000 with an error of 1%, this statement is 99% true). Therefore it can be concluded that there is a meaningful and positive relationship between the welfare of the people and their

satisfaction level of implementing the subsidies reorientation plan.

**Hypothesis 4:**

There is a relationship between the resulting inflation and public satisfaction level of implementing the subsidies reorientation plan (table 10)

Table 10. Results for the relationship between the resulting inflation and public satisfaction level of implementing the subsidies reorientation plan

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	Resulting Inflation	0.339	0.0000

Results obtained from Table 10 show that there is a relationship between the resulting inflation and public satisfaction level in Ilam province variables (Taking into account  $r=0.339$  and  $sig=0.000$  with an error of 1%, this statement is 99% true). Therefore it can be concluded that there is a meaningful and positive relationship between the resulting inflation and public satisfaction level of implementing the subsidies reorientation plan (table 10).

**Hypothesis 5:**

There is a relationship between the consistency (or lack of it) of cash subsidies received with additional expenses caused by prices liberation

Table 11. Results for the relationship between the consistency (or lack of it) of cash subsidies received with additional expenses caused by prices liberation and public satisfaction level of implementing the subsidies reorientation plan

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	consistency (or lack of it) of cash subsidies received	0.574	0.0000

Results obtained from Table 11 show that there is a relationship between the consistency (or lack of it) of cash subsidies received with additional expenses caused by prices liberation in Ilam province variables (Taking into account  $r=0.574$  and  $sig=0.000$  with an error of 1%, this statement is 99% true). Therefore it can be concluded that there is a meaningful and positive relationship between the consistency (or lack of it) of cash subsidies received with additional expenses caused by prices liberation and public

satisfaction level of implementing the subsidies reorientation plan (table 12).

**Hypothesis 6:**

There is a meaningful relationship between the current quality of domestically made products and satisfaction level of people in Ilam from implementation of subsidies reorientation plan

Table 12. Results for the relationship between the current quality of domestically made products and satisfaction level of people in Ilam from implementation of subsidies reorientation plan

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	current quality of domestically made products	0.550	0.0000

Results obtained from table 12 show that there is a relationship between the current quality of domestically made products and satisfaction level of people in Ilam province variables (Taking into account  $r=0.550$  and  $sig=0.000$  with an error of 1%, this statement is 99% true). Therefore it can be concluded that there is a meaningful and positive relationship between the current quality of domestically made products and satisfaction level of people in Ilam from implementation of subsidies reorientation plan (table 12).

**Hypothesis 7:**

There is a meaningful relationship between the Management of the Plan and long-term vision of planners and satisfaction level of people in Ilam from implementation of subsidies reorientation plan

Table 13. Results for the relationship between the Management of the Plan and long-term vision of planners and satisfaction level of people in Ilam from implementation of subsidies reorientation plan

Type of Examination	Dependent Variable	Independent Variable	R	P
Spearman	Satisfaction Level	Management of the Plan and long-term vision of planners	0.550	0.0000

Results obtained from Table 13 show that there is a relationship between the Management of the Plan and long-term vision of planners and satisfaction level of people in Ilam province variables (Taking into account  $r=0.550$  and  $sig=0.000$  with an error of 1%, this statement is 99% true). Therefore it can be

concluded that there is a meaningful and positive relationship between the Management of the Plan and long-term vision of planners and satisfaction level of people in Ilam from implementation of subsidies reorientation plan (table 13).

Table 14. Prediction of public's satisfaction level of implementation of subsidies reorientation plan based on the variables of this study

Prediction Variables	R	R <sup>2</sup>	F	P	T	P
Constant Level					-0.071	0.922
Identification of Targeted Group					0.841	0.000
Situation of People's Welfare					0.214	0.000

Resulting Recession and Inflation from Implementation of the Plan	0.81	0.66	128.027	0.000	-0.200	-2.52	0.012
The Consistency (or Lack Of it) of Cash Subsidies Received with Additional Expenses Caused by Liberation of Prices					0.373	3.662	0.000
Current Quality of Domestically Made Products					-0.081	-0.924	0.356
Management of the Plan and Long Vision Planning					0.258	3.20	0.001

As it can be observed from Table 14, based on the results obtained from linear regression, prediction of public's satisfaction level from implementation of subsidies reorientation plan based on the variables of this study and multiple correlation coefficient (MR=0.81) is possible and the value of F=128.027, which on the level of P<0.001 is logical. The results also show that 0.77% variance of public satisfaction level based on the variables of this study can be explained, and identification of the targeted group with ( $\beta=0.84$ ), consistency or inconsistency of paid cash subsidies with prices liberation with ( $\beta=0.377$ ), management of the plan and long-term planning with ( $\beta=0.258$ ), current situation of people's welfare with ( $\beta=0.214$ ) and the resulting recession and inflation from implementation of the plan with ( $\beta=0.200$ ) are the best parameters in predicting the satisfaction level of people from implementation of subsidies reorientation plan respectively.

## 10 Conclusion

The Legislation of Subsidies Reorientation and its execution has been one of the most important and largest projects in the public policy making sector in Islamic Republic of Iran. This legislation has been implemented within the framework of the "Economic Development Plan" by the tenth government of Iran to tackle and reorganize structural problems associated with the economy and to support low income and vulnerable sections of the society. Multiple problems associated with the plan such as failure in identifying the targeted groups correctly, its inflationary effects, inconsistency between the amount of paid cash subsidies to the population with the costs resulted from liberation of prices, weak management and lack of long-term vision and planning have all been effective reasons for low level of satisfaction from implementation of the plan amongst the people. Finally, this study shows that satisfaction level of Ilam's population from implementation and its planning and management during the first and second stages are low, even though the government has had some success in the second phase of the plan in controlling inflation, foreign currencies exchange rates and the market, people still are unsatisfied of the implementation of the plan in its previous format.

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## ANALYTICAL AND STATISTICAL INVESTIGATION AND ASSESSMENT OF CITIZENSHIP RIGHT IN THE CITY OF ARDABIL Using Excel and spss

<sup>a</sup>YOUSSEF DARVISHI, <sup>b</sup>MEHDI NOSRATI

<sup>a</sup>Assistant professor, Department of Geography and Urban Planning, Payame Noor University (PNU), Tehran, Iran

<sup>b</sup>Lecturer Department of Computer Engineering, Payame Noor University(PNU), P.O.Box 19395-3697, Tehran, Iran

Email: <sup>a</sup>phddarvishi@yahoo.com, <sup>b</sup>nosrati@pnu.ac.ir

**Abstract.** The present study is analytical, descriptive, and field work. Library and field methods are used to collect the required data. Finally, Excel is used to draw graphs. Findings of the study suggest that factors such as the lack of a culture of coexistence and respect for the rights of each other in different parts of life, from traffic priority to cleaning of the urban environment, weakness of organizations related to citizens' affairs including the right to have a healthy city, urban welfare, and failure to provide citizens with primary and secondary services such as leisure time and green space have exacerbated the difficult situation of citizenship rights in the city of Ardabil. Therefore, both officials and citizens are recommended to improve the quality of the living environment.

**Keywords:** rights, citizenship, participation, facilities, culture, Ardabil

### 1. Introduction

Citizenship rights have had an extensive footprint in the legal literature of Islamic Republic of Iran in recent years. Studies have shown that this issue has its roots in ancient history of Iran and Orient (Esmaeli, 2011).

Observing citizenship rights in various fields is considered as one of the necessities of life, as a social phenomenon, is one of the necessities of life. Citizens generally act with different tastes and motivations in the community; therefore, social life requires the existence of legal relations between individuals and different groups of the society that should be under legal laws and regulations.

Obviously, in the absence of law and regulation in the community, coercion, extortion, and deception govern the community and cause chaos and disorder. Therefore, governments and public institutions have adopted specific policy toward setting these relations by setting out the relevant rules and regulations in recent centuries (Hashemi, 2005).

The concept of citizenship rights includes a set of rights and obligations. Basically, right and obligation are against each other and right is followed by obligation. Citizenship right is being rooted in historical status and membership in a congregation, which is of particular importance recently (Ismaili, 2011).

Legal documentation of citizenship rights show that on the basis of a general classification, citizenship rights are classified into three groups of civil rights, political rights, and social rights (Jafari, 2003, 20).

In Islam, different rights and duties have been considered for citizens, as elements of the Muslim community. Citizen is a concept based on natural law, divine law, and social rules that regulate urban and citizenship relations. These laws and rules are sometimes written, "law", and sometimes unwritten laws trusted by the majority of people, "norm" (Katoozian, 1998; 370).

To contemplate about citizenship rights and duties, the first questions that arise are: what is citizenship rights? Who can have these rights? And where can it be searched? According to social experts and sociologists, burghers are promoted to citizens when they respect each other's rights and social laws and fulfill their responsibilities toward other citizens and their communities. The concept of "citizen" can not only be defined in urban community, but also it can also be defined in the provincial and national community. Due to advances in

technology and communications, "citizenship" can be also considered for the international community. It can be argued that citizenship rights are a set of duties and responsibilities of citizens for each other and for the city and the state where they live.

Like other major cities of Iran, the city of Ardabil has had a hasty growth, which is due to the phenomenon of rural migration to the cities. Therefore, population of this city, as the capital of the province, is dense with three origins of nomadic, urban, and rural lifestyles with ethnic, economic, social and cultural base differences. Each of these social groups has different perceptions of urban life issues and its laws and regulations, which has created challenges in terms of citizenship rights in this country. Considering the importance of this issue and given the interest of researcher in this important issue of modern urbanization, researcher attempts to qualitatively and quantitatively investigate the status of citizenship rights in the city of Ardabil in this field study.

### 2. Hypotheses

Based on what was said, the most important questions are as follows:

1. What is citizenship rights and what are different types of citizenship rights and responsibilities of citizens toward each other in city?
2. How is the status of citizenship in Ardabil and in which sector of citizenship laws, the most important challenge of the citizenship rights in the city of Ardabil exists?
3. What are the applied policies and strategies of citizenship rights?

Based on the questions, hypotheses are proposed as follows:

1. It seems that members of citizen family have legal and privacy rights in relation to other citizens and the government, wherever they live.
2. It seems that citizenship rights are in the domain of citizens' responsibilities for each other and the city of Ardebil is faced with serious challenges in the field of culture and citizenship rights like respecting urban traffic.
3. The most important strategies that can be useful to promote citizenship rights are culture building through media and educational centers and being concerned with obligations of Islam about human rights.

### 3. Research Methodology

Various research methods have been used in this study. Given that the present study is a fieldwork and is descriptive and analytical in terms of methodology and nature, library and filed methods are used to collect data. Reasoning and SPSS software are used to analyze the data and Excel is used to draw charts.

Data and theoretical foundations of the related field are collected through library method, field and concrete data are collected through a questionnaire (based on a Likert scale), interviews with the target groups and organizations involved in the issue, and field review. For actual and field documentations for better analysis of the collected data, image data (video and photo) are prepared and recorded.

The study population consists of Ardabil citizens and sampling method is random sampling. Cochran method is used to determine the sample size based on the number of households in an urban context.

To analyze the data, data are first classified and entered into SPSS software. Then, cause and effect analysis has been done

on qualitative data obtained from interviews and field works. To specify the relationship between variables, Excel software is used to draw charts. Finally, data are analyzed with two descriptive and inferential statistics.

**Descriptive statistics:** data are described in the form of tables and graphs.

**Inferential statistics:** relationships between variables are tested using statistical tests and the results are explained. All statistical analyses are performed using Excel software.

#### 4. Objectives and achievements

Any research study pursues certain objectives and researchers hope to achieve these objectives.

The most important scientific goals of this study are:

1. Investigating citizenship rights.
2. Strengthening citizenship structure through the establishment of the system of rights and obligations between citizens and city managers.
3. Strengthening vision of collective life and respecting collective needs versus individualism in Ardabil city.

The most practical objective and achievement of this study could be that investigation, analysis, and pathology of reasons and positive and negative aspects of citizenship rights in Ardabil and its consequences help expand scientific discussion and related studies can be used by state organizations including municipalities, the city council, the department of housing and urban development, police stations, welfare centers, law centers, and social-service providers so that alternatives may be considered to solve these problems in society.

### 5. Theoretical foundations

#### 5.1 The concept of citizenship rights

Rights is literally the plural form of right and includes powers, abilities, and capabilities that are considered for humans by law, Islamic law, custom, and contracts. Idiomatically, the word rights is principles, rules, and regulations that sets the relationship among people in private law and the relationship between sovereigns and obedience in public law. In fact, it is a set of rights that people having because of their citizenship status. It is also general information that refers to a set of citizens' ratings and a set of rules that refers to their status in the society they live, beyond a concept entitled as nationality, regardless of hierarchies and distinct status of individuals (Ismaili, 2011: 24).

#### 5.2. Foundations of citizenship rights in Islam

In Islam, different rights and duties have been considered for citizens, as elements of the Muslim community. Citizen is a concept based on natural law, divine law, and social rules that regulate urban and citizenship relations. These laws and rules are sometimes written, "law", and sometimes unwritten laws trusted by the majority of people, "norm". Right in terms of positive law is a privilege and interest of the person that is supported by the right of any state in the administration of justice and the person is seized power on the right to prohibit others violating his rights. Foundations of rights in Islam include anthropological and specific world of ideas. Acceptance of man's responsibility before God and obedience relationship is highly effective in the delimitation of human rights. But in terms of jurisprudence, right is a kind of property that especially exists between landlord and tenant. The word right is sometimes against property and sometimes they are synonyms. In both

senses, it is a power for human beings forged for others, which is the lowest level of ownership (Al-Bahralolom, 1982: 14).

#### 5.3. Features of citizenship rights

1. It is universal because it is the right of every member of the human family and every human beings, wherever they may be, of any race, language, gender or religion deserve it (Nasr, 2002, p. 215)
2. It can't be transmitted and it is indivisible from human beings because people can't be called human beings without it.
3. Its elements are interdependent and complement each other.
4. It is a gift of God and no human authority grants these rights.
5. It is intrinsic to human, which is not interpreted as human personality traits and is not dependent on any contract (Nasr, 2002: 215).

#### 5.4. Indices of citizenship rights

##### 5.4.1 Awareness of citizenship rights

The basis of citizenship rights is constitution of Islamic Republic of Iran and awareness of citizenship rights is that what people have in their minds about citizenship rights and how this knowledge is in accordance with reality.

In the constitution of Islamic Republic of Iran, 12 articles are about citizenship political rights, 8 articles refer to citizenship civil rights, 4 articles refer to citizenship cultural rights, and 20 articles refer to gender rights (Hezar Jaribi, 2011, 3).

##### 5.4.2 Social base

In social sciences' dictionary, Allen Biro defines social base as a place where everyone occupies in social structure and also social status or prestige that contemporary people delegate a person in the society that he lives. In other words, the place where a certain person occupies in a certain system and at a certain time is called his base (Sheibani, 2004: 10).

##### 5.4.3 Use of mass media

The use of mass media, including radio, television, press, satellite, Internet and newsletters within the enterprise is in question as follows (Hashemian, 2009: 44)

##### 5.4.6. Presence in public arena

Presence in public arena is measured with the cooperation and membership in associations and civil society. Presence in public arena means cooperation, participation, admission, membership, intellectual assistance, moral support, financial assistance, material support, participation in programs, taking executive responsibilities, and any activities done in connection with the civil society including cultural, social, economic and environmental activities with the assumption that if people are more present in public arena, their awareness of their citizenship rights is more (Shiani, 2004: 30).

#### 5.5 Classification of citizenship rights

On the basis of a general classification, citizenship rights are classified into three groups of civil rights, political rights, and social rights.

- a) Civil rights: that are also known as rights relating to personality in Iran, are rights related to preserving the essence of human. It is also known as public rights because application of all these rights is on the side of the state and government representatives rather than ordinary people (Dashti, 1999: 50). Civil rights are rights related to freedom, equality, and individual's responsibilities.

b) Political Rights: Is the second type of citizenship rights. Political rights are rights whereby the right holder can participate in his national sovereignty. The most important political rights are the right to participate in elections, the right to be selected in political jobs, and the right to have nationality (Tila, 2010: 80).

c) Social rights: are the third type of citizenship rights. These rights are related to the birthright of every person to benefit from a minimum of economic and security standards. In other words, social rights are concerned with welfare services (ibid.). These rights include:

A) Financial and income supports such as providing housing, jobs, paying sufficient salaries and benefits, entitlement to the minimum wage, social security in the event of unemployment, disability, old age, orphanage, accidents.

Freedom consists of the following factors. Freedom rights include:

1) Freedom of individual performance, such as freedom of choice of housing and residence area, freedom of communication, and freedom of movement.

2) Freedom of thought, such as freedom of opinion, freedom of religion, freedom of speech, freedom of the press, freedom of education.

3) Freedom of assembly including freedom of temporary assembly and freedom of organization links.

4) Economic and social freedoms such as freedom of property, trade and industrial freedom, labor freedom, and freedom of union.

5) Rights related to equality such as equality before the law, equality before the courts, equality in taxation, equality in terms of employment, and equality in military service (Dashti, 1999: 78).

B) Enjoying free education

C) Enjoying healthcare, such as the enjoyment of health services and medical care and public health insurance

D) judicial protections, including the right to have counsel and the right to petition the court (ibid).

## 5.6. Citizenship rights in Iran's 1404 vision plan

According to the vision plan, the society should move toward a developed society to suit the cultural, geographical, and historical needs of the community in the twenty-year horizon, and should rely on moral principles and Islamic, national, and revolutionary values with an emphasis on:

- 1) Religious democracy
- 2) Social justice
- 3) Freedoms
- 4) Maintenance of human dignity and rights
- 5) Benefit from social and judicial security

In 1404, Iranian people should be active, responsible, veterans, pious, and satisfied, and should have the following facilities:

A) National welfare (examples of which include: health, welfare, legal security, social security, and equal opportunities, proper distribution of income, family foundation away from poverty, discrimination and benefited from a favorable environment)

B) National security (secure, independent and powerful with defensive organization, based on multilateral deterrence and connection of people and government)

C) National production (with advanced knowledge, capable in science and technology, relied on the contribution of human resources and social capital in national production) (Sahife Noor, 1993: 229).

## 6. Research Findings

### 6.1. Geographical location of Ardabil

Ardabil city is located in northeast Azerbaijan in 38°15' N E. It is approximately 20 kilometers far from the border of Azerbaijan. Neighboring Caspian Sea, it is located on an open plain 1,500 meters above sea level, just east of Mounts Sabalan and Baghroo. The city of Ardabil reaches Garmi city on North, Astara and Talesh forests on East, Khalkhal city on south, and Meshkin Shahr city on west.

### 6.2. Status of citizenship rights in Ardabil

Lethargy, slight growth, and subtle changes of the face of the city are grievances heard from Ardabil citizens. When the reasons are asked, responses are not pleasant.

During the past decades, the city of Ardabil, as the capital of province, has faced massive problems and concerns. A look at different areas shows that a good conclusion and solution has not been achieved yet.

Different tastes and island performance along with selfishness have caused the development of Ardabil city not to be as much as its counterparts' achievements.

Ardabil has faced significant growth of population, massive migration from rural areas and formation of informal settlements, excessive use of God-given resources, unplanned urban development, traffic problems, and above all cultural problems in recent years. It has also witnessed brain drain because of failures, disabilities, and negligence in solving these problems.

In response to these concerns, most citizens believe that culture is the main reason. In this city, egotism, jealousy and preference of individual rather than collective work have led to the lack of development.

Meanwhile, Ardabil municipality, as an effective and decision-maker institution in urban management, always believes that it is not so free since management of urban units is not governing the current rules; therefore, it has focused on civil affairs.

Focus on civil affairs also has not been so successful because of limited income of the municipality, major mistakes in designs, and weaknesses of engineering tasks. Its achievement, in the words of one of the city council members, is that the face of Ardabil city has not changed for many years.

Managerial changes in the municipality of Ardabil were followed by distresses in the performance of executive sector from the beginning of the current year. Finally, these changes seek comfort by choosing a municipal who has entered non-governmental institution from a governmental body, and is selected by city council members.

Considering municipality's rules and also studies conducted on legal restrictions, implementing Ardabil municipality's rules and regulations about performance of the urban management system of Iran and activities of cities' municipalities gives useful insights regarding features and history of this area. However, considering basic legal challenges of Ardabil municipality's rules, especially with regard to the issue of citizenship, is essential. Such challenges are (Esmaeli, 2011: 257):

1. Not scrutinizing mutual rights of city and municipality
2. Absence of citizens in the process of preparation, review and approval of urban development plans
3. Not specifying mutual rights, obligations and duties of citizens and municipalities
4. Lack of strategies for attracting citizens' participation

5. Lack of modern informing programs for communication between municipalities and citizens

If right challenges of Ardabil municipality, municipalities' restrictions in urban functional activities are considered regardless of environmental challenges around the municipality of Ardabil city and municipality rules, they will be so abstract.

It is because there is a series of causes and effects and forces and also reasons that contribute and are involved in the formation of legal challenges. Therefore, any analysis conducted without considering the context and historical, cultural, and political backgrounds would be an incomplete analysis. Given this methodological and legal principle of the municipality and the municipality rules and regulations, some key points can be mentioned:

1. The rights challenges of municipalities are of two dimensions: internal legal challenges and external legal challenges
2. Internal legal challenges of municipalities are those that deal with the legal logic of rules and regulations of municipalities, i.e. they refer to the nature of developing rules and regulations and their legal content.
3. External legal challenges of municipalities are those refer to the urban environment of the implementation of these laws and regulations.

4. The main factor affecting internal legal challenges of municipalities is legal content that has led to the development of municipalities' rules and regulations.

5. The main factor affecting external legal challenges of municipalities is urban economic, social, political, and cultural environment, where these rules and regulations are to be run.

6. The main underlying elements that affect the formation of internal legal challenges of Ardabil municipality and refer to legal and logical content of municipalities' rules and regulations are as follows:

1. The mismatch between some rules and regulations of municipalities with urban characteristics of the country
2. The existence of legal gaps in some of the activities done by municipalities
3. Not forecasting new rules and regulations for municipalities
4. The lack of legal activities in some municipal laws and regulations
5. The incompatibility of the legal content of some rules and regulations of municipality with the laws of other institutions
6. Not forecasting legal mechanisms suitable for the implementation of relevant laws and regulations of municipalities (Esmaeli, 2011: 259).

Table 1: Observing citizenship rights with regard to distribution of respondents based on gender

Gender	Number	Percent
Female	801	68
Male	383	32
Total	1184	100

Distribution of statistical population shows that the largest group with regard to age includes 1184 people, who were in the age range of 21 to 25 years old (18%) and the smallest group with

regard to age includes people in the age range of 46 to 50 years old (7%) (tables 1 and 2).

Table 2: Observing citizenship rights with regard to distribution of respondents based on educational level

The education level of respondents	Number	Percent
Diploma	495	42
Primary school	181	15
Bachelor's Degree or higher	175	15
Graduate students.	118	10
Guidance school	116	10
high school	58	5
Illiterate	41	3
Total	1184	100

Respondents' level of education, according to statistics contained in Table 5.6, shows that of the 1184 respondents, 42 percent are diploma and 3 percent are illiterate (table 3).

Table 3: Distribution of respondents based on institutions' responsibility for the promotion of observing citizenship rights

Responsibility of the municipality, school, and family in promoting citizenship rights	Number	Percent
Training citizenship rights	450	38
Culture building	217	19
Effective informing and advertising	195	17
Raising public facilities and urban services	167	14
Coordinated and comprehensive planning of all institutions	132	11
I do not know	10	1
Total	1171	100

Based on Table 1, from among the 1171 respondents pointing out the examples of violating citizenship rights in public transportation.

Table 4: Distribution of respondents based on the introduction of institutions affecting the promotion of citizenship rights among the people of Ardabil

According to respondents, which institutions are involved in promoting citizenship rights among the people?	Number	Percent
Family	311	26
Municipality	298	25
Media	273	23
All institutions	212	17
School	109	9
Total	1203	10

Based on Table 4, from among 1253 respondents, 26% believed that family has a significant role in promoting observance of citizenship rights, 25% believed that municipality is effective, 23% believed that media is effective, and 9% believed that school is effective in promoting observance of citizenship rights.

Table 5: Distribution of respondents based on instances of violation of citizenship rights in public transportation

examples of violation of citizenship rights in public transportation from the viewpoint of respondents	Number	Percent
Ignoring turns	487	41
Pushing and overcrowd of ladies	137	12
I do not know	107	9
Other	101	9
Inconstant and unfair calculation of rents	86	7
Travelers abusive behavior towards others	80	7
Drivers' disrespect and disregard toward passengers	74	6
Loud talking on cell phones	62	5
Sitting improperly	50	4
Total	1184	100

Based on Table 6, from among 1184 respondents, the majority and 41% believed that ignoring turns is the most obvious instance of violation of citizenship rights in public transportation. The results are presented in table 6-14.

Table 6: What percentages of citizens observe traffic rules when crossing the street?

	Percent	Number
Yes	15	19
Most of the times	10	10
Sometimes	15	20
No	60	40
Total	100	89

Table 7: Percentage of respondents' answer with regard to the use of pavements

	Percent	Number
Yes	39	40
Most of the times	29	25
sometimes	23	25
No	9	8
Total	100	98

Table 8. Respondents' answer with regard to observance of cleanliness when using public transportation vehicles

	Percent	Number
Yes	36	25
Most of the times	28	25
sometimes	25	20
No	11	20
Total	100	90

Table 9: Percentage respondents' answer regarding throwing trash to trash bin

	Percent	Number
Yes	20	10
Most of the times	20	10
sometimes	13	18
No	47	49
Total	100	87

Table 9. Respondents' opinion of violation of the rights of others

Respondents' feeling, who have violated the rights of others	Percent	Number
I get sad	131	68
I apologize	43	22
I do not care	15	8
I get off	3	2
Total	192	100

Table 10: Respondents' opinion of governmental institutions with regard to the implementation of citizenship rights

	Percent	Number
Yes	70	50
Most of the times	12	13
sometimes	10	14
No	8	10
Total	100	87

Table 11: Respondents' opinion personnel on the observance of citizenship rights in public transportation

Distribution of respondents based on observance of citizenship rights in used public transportation	Percent	Number
Bus	595	48
Taxi	243	20
None	179	14
all items	47	4
Total	1237	100

Table 12. Respondents' opinion of helping those in need

	Percent	Number
Yes	86	80
Most of the times	10	10
Sometimes	3	3
No	1	1
Total	100	94

Table 13: Respondents' opinion of municipality's performance in beautification

	Percent	Number
Yes	75	65
Most of the times	9	9
sometimes	10	10
No	1	1
Total	95	85

Figure 14: Frequency of respondents' opinion of the performance of municipality in beautifying city

Instances of citizenship rights	Number	Percentage
In public transportations	1184	20
Observing traffic rules		28
Considering trashes on streets		47
Helping needy and old people		
Municipality's attention to citizenship rights		
Total		100

## 7. Conclusion

Citizenship rights have had an extensive footprint in the legal literature of Islamic Republic of Iran in recent years. Studies have shown that this issue has its roots in ancient history of Iran and Orient.

A citizen can have the following features:

1. He is global, meaning that any member of the human family, wherever he is, deserves the rights.
2. These rights are non-transferable.
3. He can have God-given gifts and intrinsic rights.

Applied policies and strategies of citizenship rights include factors such as:

1. Prioritizing executive institutions' programs that are in line with the objectives of staff
2. Monitoring observance of citizenship rights in governmental and public organizations emphasizing the urgency of this issue
3. Imposing laws and regulations necessary for citizenship rights and maintenance of public security and so on.

Citizenship rights are relatively broad concepts that encompass civil, political, economic, social, and personal rights and affairs without political nature. Generally, citizenship rights can be defined as a set of rules that govern individuals' relations in a society. According to Imam Ali, the right of a leader on people and people's right on leader is one the greatest rights in the law of God.

Principles of citizenship rights in Islam are natural law, divine laws and social rules, anthropological ideas, and specific world view.

One of the important functionalities of any government is providing security for citizens. Social security is one of the main

contexts on implementing justice and is the most suitable contexts for the emergence of balance in the society. One of the important rights of citizens is being protected against domestic miscreants and foreign enemies' attack since other affairs cannot be done without being secure. Accordingly, there is a need to an experienced, professional, and committed legion to be under the command of a strong and stable person.

Individuals' presence in civil organizations is related to cultural, social, political, economic, and environmental factors, with the assumption that the more presence in public arenas, the more awareness of citizenship rights.

Social responsibility is a burden borne by private institutions that include tasks such as not polluting, non-discrimination in employment, not doing immoral activities, informing consumers of product quality, and positive contribute to the lives of people. Duties of municipality of Ardabil toward citizenship rights are:

1. The municipality must have the spirit of serving and sincerity more than elsewhere
2. It should address the issue of plant, gardens, trees, and green spaces that have positive psychological and mental effects on urban life.
3. It should stop attacks to forests and agricultural lands and should prevent their land use change to residential and commercial uses.

Ardabil municipality is connected to people on three levels. The first level is serving people, the second level is preserving and developing green spaces, and the third level is culture.

If you throw your trash on streets, you have to pay fine. Based on Article 16 of this law: "preserving, combining, collecting, transporting, buying and selling, disposing, and draining wastes

in environment is allowed based on this rule and its implementation guidelines.”

Otherwise, if people violate the warrant of judicial authorities, they have to pay a fine of about 500 thousand Riyals to 100 million Riyals for ordinary wastes and about 2 million Riyals to 100 million Riyals for other wastes. If they repeat, their punishment will be double their previous punishment.

Legal challenges of Ardabil municipality's rules and regulation about citizenship rights are of particular importance for factors such as:

1. Not scrutinizing mutual rights of city and municipality
2. Absence of citizens in the process of preparation, review and approval of urban development plans
3. Not specifying mutual rights, obligations and duties of citizens and municipalities
4. Lack of strategies for attracting citizens' participation

The most important solutions for observing citizenship rights include:

1. We should do anything that makes the city beautiful, clean, and healthy and encourage others to do so.
2. We should try to maintain and develop green space and encourage others to do so.
3. We should try to understand the culture and urbanization and citizenship rights and contribute to its expansion.
4. We should separate and packaging wastes and put them out at the appointed time.
5. We should not pollute city by throwing trashes on streets and should be committed to the slogan of healthy city, healthy citizens.
6. We should observe urbanization, rules of apartment living, and the rights of our neighbors.
7. We should observe urban traffic rules and make others familiar with them.
8. We should love our city and be responsible with partnership and cooperation and ask others to be the same.

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## MODERATING EFFECT OF PERFECTIONISM ON THE RELATIONSHIPS BETWEEN PERSONALITY TRAITS WITH LIFE SATISFACTION AND PSYCHOLOGICAL WELL-BEING

<sup>a</sup>MEHRI SADAT NAVADEH GHARE SEYYED, <sup>b</sup>ALIREZA KAKAWAND, <sup>c</sup>MOHAMMAD HAKAMI

<sup>a</sup>*M.A of general psychology, Kish International Branch, Islamic Azad University, Kish Island, Iran*  
Email: mehri.navade@yahoo.com

<sup>b</sup>*Associate professor, Imam Khomeini international University*  
Email: ali.reza\_kakavand@yahoo.com

<sup>c</sup>*Ph.D. psychology department, Islamic Azad University, Karaj Branch, Alborz, Iran*

Email: <sup>a</sup>mohammadhakami@yahoo.com,

<sup>b</sup>ali.reza\_kakavand@yahoo.com, <sup>c</sup>mhmd.hakimi.cc@gmail.com

**Abstract.** The current study is aimed to determine the moderating effect of perfectionism on the relationships between personality traits with life satisfaction and psychological well-being. Research population was all undergraduate students of Islamic Azad University of Tehran that 140 students were selected through multi-level clustering sampling. Data collected through psychological well-being questionnaire, perfectionism list of Hill, short form questionnaire of personality traits of NEO and life satisfaction questionnaire and were analyzed in descriptive and inferential sections. The results showed that personality traits and perfectionism has significant statistical relationship  $P < 0.01$  with psychological well-being and only the variables of neuroticism, extroversion, and conscientiousness were the aspects of personality traits.

**Key words:** psychological well-being, life satisfaction, perfectionism, personality trait

### 1 Introduction

For a long time that question that what a good life is, had been drawing the attention of human being. Ancient Greek philosophers believed that good life will be obtained from virtue. In ancient China also, Confucian has considered good life as doing roles and responsibilities of people appropriately and utilitarian such as Jeremy Bentham believed that a life can be the good one which is full of happiness and joy and a good society is the one which all people in it are good. Although seeking consisting factors of good has its roots in very distance past, despite this, empirical studies have been done in recent years in the field of the constituent factors of good life and happiness (Diener and Suh, 2000). Some of researchers have raised some questions in recent years that have created great development in the field of health psychology especially health definition. Questions such as what the happiness is. Why do different people have different levels of happiness? Who experience higher level of happiness? Perhaps the most important reason of wide attention to study of subjective well-being and responding raised questions is derived from its extraordinary importance according to people. For example Diener and Oshie (2003) showed in a study that most of people agree with this opinion that being happy is their ultimate aim. Their studies have also showed that according to people being happy is more important than good health, high income, high attractiveness and experiencing love and meaning in life.

Subjective well-being is a multi-dimensional and hieratical concept which consists of two emotional and cognitive aspects. The component of life satisfaction is cognitive aspect and components of positive affect and absence of negative affect are its emotional aspect (Diener, Sue, Lucas, & Smith, 2000). Diener, et al., (1998) have included having low levels of unpleasant emotions like depression and anxiety also in subjective well-being definitions. Generally based on Diener, Oishi and Lucas (2003) subjective well-being is what, ordinary people call it satisfaction or happiness.

Initial studies about psychological well-being focused on experiencing positive and negative emotions, psychological well-being and life satisfaction which have been formed from Greek word of "Eudemonia" which has been defined as happiness (Ryff, 1989). They have defined happiness as the balance between positive and negative emotions. Providing

many scales which were built in order to assessing life satisfaction and were used in wide researches, was based on this subjective and abstract concept of satisfaction (Feicht et al, 2013).

Shafran (2002) was the first cognitive-behavioral theorist who explained perfectionism. He defined perfectionism as one of twelve irrational underlying beliefs that leads to psychological distress. He believed that perfectionism is acceptance of this belief in person that he has to be completely worthy, deserving, intelligent. Shafran defined perfectionists as people with the main goal of progress and success in life. According to perfectionists incompetence is an index of incompetence and worthless of person. He also said that by perfectionism we mean having this belief that there is always an accurate, complete and correct response for human problems and if this solution isn't found, that will be disaster. He considered self-dissatisfaction and low self-esteem as key characteristics of perfectionism.

Multi-dimensional model of Ryff et al., (1989) is one of the most important psychological well-being models. Ryff considers psychological well-being as person's attempt for realizing his real potential ability. If in an assessment a person is satisfied with his talents, abilities and activities, he will have good mental function. Psychological well-being is a multi-component concept that can be interrelated with numerous factors. One of factors that can be related to psychological well-being is perfectionism. Positive perfectionism predicts psychological well-being positively and negative perfectionism also affects psychological well-being negatively.

Different personality traits can have great role on the manner of impression and the relationship of the individual with his environment (Sapington, 2008). The personality of each person consists of his desires and dislikes, fears and privileges and capabilities and traits. These features differentiate people from each other. Personality is visible aspects of individual behavior which affect others. It also includes social, mental and emotional characteristics of person. Personality is also a set of durable and unique features that might be different in responding to different situations. People have deep traits that consist of fundamental components of their personality. Personality recognition requires accurate description of this component.

Fist (2002) introduced three personality aspects. Each one of these personality aspects includes numerous adjectives. These personality aspects include extroversion, neuroticism and psychopathic. He believed that these personality aspects can predict behavior. Fist (2002) believed that because of ignoring personality aspects, many psychological researches have ended up wrong conclusions.

Personality is the most important tool for biases and life guidance. On one hand it determines the aim and on the other hand provides the facilities for achieving the goal. The feature of requiring success can be used as an example here which is either goal determiner or provider power for achieving that goal based on the five factor theory of Fedewa et al., (2005).

A person's personality traits seem to be effective on his personality perfectionism and well-being and cause person's satisfaction or dissatisfaction from his life (Besharat, Habibnejad and Geranmayepur, 2009).

Diener (2003) believes that individual life satisfaction origins from his general assessment and attitudes toward his total life or some aspects of life such as family life, occupation, income, free time and so on.

Life satisfaction is in fact reflection of the distance between the person ideals and his current situation and whatever the gap

between person's ideals and his current situation is more, his satisfaction will decrease (Zaki, 2007). Considering life satisfaction is the reflection of balance between person's wishes and his current situation (Nasiri Jokar, 2008; quoted by Hosseini et al., 2011) and since perfectionists always look for various goals, life satisfaction seems to be less in people with high perfectionism than other people and researches have shown that perfectionists will be more confused by goal setting (Hashemi and Latifian, 2009).

Numerous researches have investigated the relationship between perfectionism with numerous factors. What seems to be investigated less is the moderating effect of perfectionism on relationships between personality traits, life satisfaction and psychological well-being that in current study researcher looks for if perfectionism can work as a moderator variable on relationships among personality traits, life satisfaction with psychological well-being.

## 2 Methodology

The methodology is descriptive, the type of correlation models because researcher is going to predict criterion variable based on predictor variables. Statistical population of current study is the undergraduate students of Islamic Azad University of Tehran Research that were 13000 during study. Through multi-level clustering sampling method and considering Julie Plant formula (2009),  $N > 50 + 8M$ , 140 students considering fallings were selected out of mentioned population and answered questionnaires.

### 2.1 Measurement tools

**Ryff Psychological well-being scale (RSPWB-18):** psychological well-being is a multi-component concept and includes below cases:

Self-acceptance, positive relation with others, autonomy, environment mastery, purpose in life

For measuring these structures, Ryff designed psychological well-being scales such as 20 phrase, 14 phrase, 9 phrase and 3 phrase questionnaires. After initial investigations, the original version of psychological well-being scales that has 84 phrases was provided (1989). Then 54 phrase versions and 18 phrase short forms were designed as well. The short version of this questionnaire assesses 6 main components of psychological well-being pattern and therefore has 6 sub-scales (each sub-scale includes 3 phrases).

### 2.2 Method of scoring

In this questionnaire which is designed for adults, participant has to identifies in a 6 degree Likert scale (1= absolutely disagree to 6-absolutely agree) that in what extent he agrees or disagrees phrases. For computing the related score to each sub-scale, the scores of related phrases to mentioned sub-scale have to be added to each other. The score of psychological well-being will be also obtained through total scores of 18 phrases. Related phrases to each sub-scale:

Self-acceptance sub-scale: 2-8-10, positive relation with others: 3-11-13, autonomy: 9-12-18, environment mastery: 1-4-6, purpose in life: 5-14-16, individual growth: 7-15-17

The phrases of 3-4-5-9-10-13-16-17 are scored reversely.

The internal consistency coefficient of psychological well-being scales short forms sub-scales and also internal consistency coefficient of whole test have been reported as 0.50. Cronbach's alpha in current research has been computed as 0.73.

Related evidences to convergent validity of psychological well-being tests represent that 6 factors of mental well-being have

positive relationship with life satisfaction, self-esteem and creativity and negative relationship with depression, chance and external control source.

### 2.3 Perfectionism scale

Persian version of perfectionism list with 58 phrases and 6 adaptive sub-scales includes purposefulness, order and organization, strive for excellence and non-adaptive includes: interpersonal sensitivity, perceived parental pressure, high standards for others that was normed and validated from Houman and Samei in 2010 in an Iranian sample.

Scoring method of this scale has been validated and reliable based on 4 degree Likert scale of absolutely disagree=1, disagree=2, agree=3 and absolutely agree=4. Sub-scales and items related to each one of them are reported as follows:

Interpersonal sensitivity: 25-58-17-45-39-59-29-23-2-9-13-31-48-15-5-47-37-38-33-52

Strive for excellence: 32-40-24-1-7-8-16 order and organize: 50-35-19-55-43-27-11

Perceived pressure by parents: 30-46-6-57-53-22-14 purposefulness 28-20-4-44-36-54-12-51

High standards for others 42-26-18-34-49-21-10-41-3

Cronbach's alpha or retest estimating method was used for Validation of this set. Cronbach's alpha of total set which is an index for questionnaire validity was equal to 0.926 and validity coefficient of perfectionism list through retest after final performance was performed again on 50 people within 2 -6 weeks (averagely 4 weeks). The value of calculated Pearson correlation between these two performances was equal to 0.736. This value has been significant statistically in level of less than 0.001. Perfectionism list retest validity represents the stability of its fundamental structures. The reliability of perfectionism sub-scales through Cronbach's method was respectively calculated in this study as 0.65, 0.72, 0.81, 0.58, 0.73, and 0.78. Face and content validity: for investigating face and content validity the idea of experts were considered in the field of psychology and face and content validity of perfectionism list was confirmed.

### 2.4 Life satisfaction questionnaire (SWLS)

The scale of life satisfaction has been developed by Diener et al., 1985 in order to assess life satisfaction. This scale is a self-reporting tool which consists of 5 phrases. The phrases of this test measure subjective well-being cognition components, scoring will be done as completely agree (7) to completely disagree (1). Diener et al., (1999) evaluated life satisfaction in a sample consisting of 176 undergraduate students. The mean and standard deviation of students' scores were respectively 23.5 and 6.43 and correlation coefficient of scores retesting after two months was 0.82 and Cronbach's alpha was 0.87. In Iran, Biani et al., (2007) performed life satisfaction scale on 109 university students in order to normalization. The reliability of this test using Cronbach's alpha was 0.83 and through retesting was 0.69. The reliability of life satisfaction questionnaire was computed as 0.83 through Cronbach's alpha. The validity of life satisfaction scale structure was estimated through convergent validity using Oxford happiness index and Beck depression index. This scale has positive correlation with Oxford happiness index and negative correlation with Beck depression index.

### 2.5 Neo five personality factor questionnaire (NEO-FF-I)

NEO test was proposed by Fedewa et al., (2005). Three main scales which were neuroticism (N), extroversion (E) and openness to experience (O) that was investigated widely were considered for the first time. The indexes of agreement (A), conscientiousness (C) were evaluated in this test briefly and generally. The test of NEO PI-R was later developed because of

that and the indexes of agreement (A) and conscientiousness (C) were included also with their related scales in initial test (Haghshenas, 2009).

Translation and adaptation of this test into Persian started in 1997. After a preliminary study and its implementation on a limited group of patients referred to the psychology clinic and people with no problem and difficulty (mentally) the ultimate form was provided and then was normalized on a sample with random selection in Shiraz and the results of this normalization were published in 2008 (Haghshenas, 2008). Short form of NEO has been used in this study. This test includes five scales of C, A, O, E, N and 12 questions have been raised in each scale. Participant is asked to identify the compliance of provided phrases with his comments on a Likert scale from absolutely agree to absolutely disagree. The questions are scored as absolutely disagree (1) to absolutely agree (5).

Reported alpha coefficient by Fedewa et al., (2005) has been variable between 0.75 and 0.89 with the mean of 0.81. In a research which was done by Bouchard et al in 1999, alpha coefficient for neuroticism 0.85, extroversion 0.72, for openness

0.68, for agreement 0.69 and for conscientiousness was obtained as 0.79. (Bouchard et al., 1999)

Correlation coefficient among the scores of indexes NEO-FF-I with NEO-PI-R for indexes E, N, C, A, O was respectively calculated as 0.92, 0.90, 0.91, 0.77 and 0.87 (Haghshenas, 2006).

Reliability coefficient of retesting for an Iranian sample group including 208 students within 3 month time gap were respectively obtained as 0.79, 0.79, 0.80, 0.75, 0.83 for neuroticism, extroversion, openness and conscientiousness (Ibid). The reliability of personality test through Cronbach's alpha in current research was respectively calculated as 0.68, 0.78, 0.91, 0.78 and 0.71.

### 3 Findings

The sample of research was 140 students including 62 boys and 78 girls in an age range of 18-30 years old. In this sample 24 people were married and 116 people were single (table 1).

#### 3.1 Describing data

Table 1 Measure of central tendency and dispersion based on the scores of Psychological well-being, perfectionism, personality traits and their sub-scales and life satisfaction

Dependent variable	Number	Mean	Standard deviation	Minimum	Maximum
Self-acceptance	140	12.67	3.23	5	18
Positive relations with others	140	12.59	2.84	7	18
Autonomy	140	10.14	2.21	6	16
Environment mastery	140	12.62	2.97	7	17
Purpose in life	140	12.55	2.76	8	23
Individual growth	140	13.36	2.81	8	18
Psychological wellbeing	140	79.76	9.92	55	96
Interpersonal sensitivities	140	47.79	9.6	1	70
Being excellent	140	20.81	4.11	2	29
Order and organizing	140	18.80	4.78	0	28
Perceived pressure	140	18.82	3.72	0	28
purposefulness	140	22.79	3.95	0	31
High standards	140	21.99	4.21	4	32
Neuroticism	140	36.26	8.85	0	55
Extroversion	140	38.16	7.60	0	53
Openness	140	30.66	6.39	0	44
Agreement	140	39.81	6.94	0	59
conscientiousness	140	41.08	8.81	0	57
Life satisfaction	140	21.39	7.07	0	33

In table 2, related results to Kolmogorov and Smirnov test about scores distribution normality have been proposed.

Table 2 the results of variables scores distribution normality test

Variables	Z	Sig	Variables	Z	sig
Self-acceptance	1.75	0.004	Perceived pressure	1.31	0.059
Positive relations with others	1.34	0.054	purposefulness	1.28	0.079
Autonomy	1.31	0.063	High standards	1.32	0.058
Environment mastery	1.36	0.051	Neuroticism	1.32	0.058
Purpose in life	1.34	0.062	Extroversion	1.16	0.132
Individual growth	2.20	0.002	Openness	0.962	0.313
Psychological wellbeing	0.817	0.516	Agreement	1.257	0.085
Interpersonal sensitivities	1.29	0.070	conscientiousness	1.338	0.056
Being excellent	1.10	0.172			
Order and organizing	1.17	0.129			

The normalization of scores distribution has been reported in table 2. As it can be seen in table 2, the only distributions which aren't normalized are self-acceptance and individual growth. Considering that modification was performed.

### 3.2 Inferential findings

In this part for testing the research hypotheses and responding research questions, statistical method of stepwise multiple regression has been used.

### 3.3 Research hypothesis

Perfectionism moderates the relationship between personality traits and psychological well-being.

For testing this hypothesis, multi-variable regression analysis assumptions including normality, linearity and multiple linearity and remained independence were investigated.

Considering establishing test assumptions of multi-variable regression analysis, the results of stepwise multi-variable regression have been reported in table 3.

Table 3 the summary of regression model and variance analysis for predicting psychological well-being based on personality traits and perfectionism

Model	Variables	R	Chi-R	F	Sig	Durbin-Watson
Step 1	Neuroticism	0.336	0.113	17.59	0.001	1.629
Step 2	Neuroticism, extraversion	0.393	0.154	12.50	0.001	
Step 3	Neuroticism, extraversion, openness	0.402	0.162	8.74	0.001	
Step 4	Neuroticism, extraversion, openness, agreeableness	0.435	0.189	7.88	0.001	
Step 5	Neuroticism, extraversion, openness, agreeableness, conscientiousness	0.565	0.320	12.58	0.001	
Step 6	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, perfection, purposefulness	0.600	0.360	9.20	0.001	
Step 7	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, excellence, purposefulness and high standards, interpersonal sensitivity, perceived pressure	0.661	0.437	9.01	0.001	

As the results of table 3 show, personality traits and perfectionism has significant statistical relationship with psychological well-being  $P < 0.01$  and  $F(11 \text{ and } 128) = 9.01$ . These variables can totally predict 44 percent of psychological well-being. Considering the value of coefficient of determination it can also be stated that personality traits predict 32 percent of psychological well-being that through coming perfectionism and its sub-scales this value increased to 44 percent. Therefore it can

be concluded that perfectionism is mediator between personality traits and psychological well-being or has moderating effect on the relationship.

For investigating regression coefficients of psychological well-being, the coefficients of their effects were calculated from every single one of predictor variables. The effect coefficients of personality traits and perfectionism have been shown in table 4.

Table 4 stepwise regression coefficients for predicting psychological well-being based on predictor variables

Step	Variable	Beta	t	Sig	Tolerance	VIF
1	Neuroticism	-0.336	-4.19	0.001	1	1
2	Neuroticism, extraversion	-0.294 -0.207	-3.65 2.58	0.001 0.011	0.958 0.958	1.04 1.04
3	Neuroticism, extraversion, openness	-0.318 -0.175 0.093	-3.81 2.03 1.08	0.001 0.044 0.278	0.889 0.838 0.844	1.125 1.19 1.18
4	Neuroticism, extraversion, openness, agreeableness	-0.335 0.068 0.058 0.206	-4.05 0.691 0.679 2.14	0.001 0.491 0.499 0.034	0.880 0.623 0.814 0.655	1.13 1.60 1.22 1.52
5	Neuroticism, extraversion, openness, agreeableness, conscientiousness	-0.298 -0.032 -0.013 -0.003 0.478	-3.90 -0.344 -0.160 -0.035 5.06	0.001 0.731 0.873 0.972 0.001	0.872 0.595 0.789 0.537 0.571	1.14 1.68 1.26 1.86 1.75
6	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, perfection, purposefulness	-0.318 -0.033 -0.024 -0.025 0.440 -0.219 0.064 0.264	-4.06 -0.366 -0.300 -0.255 4.125 -1.86 0.617 2.71	0.001 0.715 0.764 0.799 0.001 0.064 0.539 0.007	0.801 0.584 0.779 0.526 0.429 0.355 0.459 0.519	1.24 1.71 1.28 1.90 2.32 2.82 2.17 1.92
7	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, excellence, purposefulness and high standards, interpersonal sensitivity, perceived pressure	-0.143 -0.69 -0.026 -0.087 0.470 -0.081 0.093 0.360 -0.272 -0.053 -0.168	-1.64 -0.775 0.347 -0.931 4.13 -0.692 0.930 3.58 -2.28 -0.602 -1.99	0.103 0.440 0.730 0.356 0.001 0.491 0.354 0.001 0.024 0.548 0.048	0.582 0.552 0.759 0.505 0.340 0.322 0.442 0.437 0.310 0.578 0.622	1.71 1.81 1.31 1.97 2.94 3.11 2.26 2.28 3.22 1.72 1.60

Considering t statistics, from the aspects of perfectionism and personality traits only neuroticism, extroversion, agreement and conscientiousness, from the aspects of personality traits and purposefulness, high standards and perceived pressure are the aspects of predictor perfectionism of psychological well-being. The aspects of personality traits predict 32 percent and the aspects of perfectionism also predict 14 percent of psychological well-being.

**3.4 Research hypothesis**

Perfectionism moderates the relationship between personality traits and life satisfaction.

For testing this hypothesis, multi-variable regression analysis assumptions including normality, linearity and multiple linearity and remained independence were investigated.

Considering establishing test assumptions of multi-variable regression analysis, the results of stepwise multi-variable regression have been reported in table 5.

Table 5 the summary of regression model and variance analysis for predicting life satisfaction based on personality traits and perfectionism

Model	Variables	R	Chi R	F	sig	Watson-Durbin
Step 1	Neuroticism	0.225	0.065	9.61	0.002	1.82
Step 2	Neuroticism, extraversion	0.453	0.205	17.71	0.001	
Step 3	Neuroticism, extraversion, openness	0.459	0.210	12.07	0.001	
Step 4	Neuroticism, extraversion, openness, agreeableness	0.475	0.226	9.84	0.001	
Step 5	Neuroticism, extraversion, openness, agreeableness, conscientiousness	0.481	0.231	8.04	0.001	
Step 6	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, perfection, purposefulness	0.512	0.262	5.82	0.001	
Step 7	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, excellence, purposefulness and high standards, interpersonal sensitivity, perceived pressure	0.570	0.325	5.59	0.001	

As the results of table 5 show, personality traits and perfectionism has significant statistical relationship with life satisfaction  $P < 0.01$  and  $F(11 \text{ and } 128) = 5.59$ . These variables can totally predict 33 percent of life satisfaction. Considering the value of coefficient of determination it can also be stated that personality traits predict 23 percent of life satisfaction that through coming perfectionism and its sub-scales this value increased to 33 percent. Therefore it can be concluded that

perfectionism is mediator between personality traits and life satisfaction or has moderating effect on the relationship.

For investigating regression coefficients of life satisfaction, the coefficients of their effects were calculated from every single one of predictor variables. The effect coefficients of personality traits and perfectionism have been shown in table 6.

Table 6 stepwise regression coefficients for predicting psychological well-being based on predictor variables

Step	Variable	Beta	t	sig	tolerance	VIF
1	Neuroticism	-0.255	-3.10	0.002	1	1
2	Neuroticism, extraversion	-0.177 0.383	-2.26 4.91	0.025 0.001	0.958 0.958	1.04 1.04
3	Neuroticism, extraversion, openness	-0.196 0.356 0.076	-2.43 4.27 0.916	0.016 0.001 0.361	0.889 0.838 0.844	1.12 1.19 1.18
4	Neuroticism, extraversion, openness, agreeableness	0.209 0.276 0.050 0.153	-2.59 2.88 0.597 1.63	0.011 0.005 0.552 0.104	0.880 0.623 0.814 0.655	1.13 1.60 1.22 1.52
5	Neuroticism, extraversion, openness, agreeableness, conscientiousness	-0.202 0.256 0.036 0.111 0.096	-2.48 2.61 0.420 1.07 0.955	0.014 0.010 0.675 0.283 0.341	0.872 0.595 0.789 0.537 0.572	1.14 1.68 1.26 1.86 1.75
6	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, perfection, purposefulness	-0.209 0.263 0.020 0.078 -0.021 -0.044 0.181 0.124	-2.49 2.68 0.239 0.757 -0.184 -0.353 1.63 1.19	0.014 0.008 0.811 0.450 0.854 0.725 0.105 0.234	0.801 0.584 0.779 0.526 0.429 0.355 0.459 0.519	1.24 1.71 1.28 1.90 2.32 2.82 2.17 1.92
7	Neuroticism, extraversion, openness, agreeableness, conscientiousness, discipline, excellence, purposefulness and high standards, interpersonal sensitivity, perceived pressure	-0.039 0.264 0.061 0.011 -0.031 0.089 0.204 0.244 -0.367 -0.020 -0.023	-0.415 2.69 0.733 0.106 -0.247 0.693 1.86 2.22 -2.81 -0.206 -0.252	0.679 0.008 0.465 0.916 0.806 0.489 0.064 0.028 0.006 0.827 0.802	0.582 0.552 0.759 0.505 0.340 0.322 0.442 0.437 0.310 0.578 0.622	1.71 1.81 1.31 1.97 2.94 3.11 2.26 2.28 3.22 1.72 1.60

Considering t statistics, from the aspects of perfectionism and personality traits only neuroticism, extroversion, from the aspects of personality traits and interpersonal sensitivity and being excellent are the aspects of predictor perfectionism of life satisfaction. The aspects of personality traits predict 23 percent and the aspects of perfectionism also predict 11 percent of life satisfaction.

### 3.5 Research hypothesis

There is a relationship between life satisfaction and psychological well-being.

For testing this hypothesis, Pearson correlation coefficient has been used that its results have been shown in table 7.

Table 7 the results of Pearson test among the aspects of psychological well-being and life satisfaction

Variable	Life satisfaction	Self-acceptance	Positive relations with others	Autonomy	Environment mastery	Purpose in life	Individual growth	Well-being total score
Life satisfaction	1	0.385**	0.160	-0.004	0.259**	0.119	0.079	0.322**
Self-acceptance		1	0.314**	-0.012	0.553**	0.136	0.357**	0.713**
Positive relation with others			1	0.047	0.240**	0.119	0.228**	0.579**
autonomy				1	0.132	0.189**	-0.008	0.258**
Environment mastery					1	0.139	0.448**	0.689**
Purpose in life						1	0.060	0.471**
Individual growth							1	0.629**
Well-being total score								1

P<0.01\*\*P<0.05\*

The results of table 7 show that there is a significant statistical relationship among life satisfaction, self-acceptance and well-being total score and there isn't significant statistical relationship among life satisfaction and other aspects of psychological well-being.

### 4 Discussion

In current research, the moderating effect of perfectionism has been investigated on relationships between personality traits with life satisfaction and psychological well-being.

Psychological well-being implies on positive mental health (Edwardes, 2005). Psychological well-being is a various multi-dimensional concept (McLude and More, 2000, Ryff, 1989; Wising and One and Eden, 2002) that as result the combination of emotion regulation, personality traits, identity and life experiences will be created (Dehlan-E- Malek et al., 2010).

Psychological well-being these days is not only the lack of mental damages it is also the presence of positive aspects of performance such as positive mood, purpose in life and social cooperation (Case, 2007; quoted by Khodabakhsh and Kiani, 2013). Preliminary studies on the psychological well-being were first concentrated on experiencing positive and negative emotions, psychological well-being and life satisfaction which has been formed based on a Greek word of "Eudemonia" (Ryff, 1989; quoted by Edwardes, 2007). They defined happiness as the balance between positive and negative emotions. Providing many scales that in order to assessing life satisfaction were made and used in many researches were based on this initial and abstract concept of satisfaction (Fichet et al., 2013). Psychological well-being can be stated based on human flourishing and understanding the challenges of life. In spite of this, psychological well-being can be operationalized in different ways; it only depends on theorizing on which one of life aspects (Wood and Josef, 2010).

Most of people have considered happiness as a basis for having an ideal life and try for acquiring satisfaction in their life (King Vanp, 1998). Chang and Stuart (2003) about the importance of life satisfaction, considered it as the ultimate goal of human growth. The importance of life satisfaction and generally mental well-being have been also emphasized by Sickzent Mihali, 2000; quoted by Hiobner, 2004). He states that mental well-being not only is one of important aspects of life, but also is life. Considering the importance of subject, many psychologists have been working about life satisfaction and stated their ideas.

Diener (2000) is one of the researchers who have investigated the importance of this subject.

According to Park (2004) cognitional aspect of mental-wellbeing is life satisfaction; this structure plays an important role as a predictor, mediator and product index in positive growth. People experience high life satisfaction when the conditions of their lives are matched with the criteria which have been determined by them (Diener, 2000).

Personality five factor pattern of a hieratical organization of personality traits that have been developed based on five main aspects of dejected orientation (neuroticism), extroversion, openness, agreeableness and conscientiousness (Sholtes, 2007). Preliminary therapists and philosophers have considered perfectionism as an important aspect of human behavior. The first person who considered perfectionism was Janet (1898). He described perfectionists as people who have stable thoughts. Therefore flexibility is one of the first raised traits about perfectionism. In preliminary definitions, perfectionism has been considered as a negative trait related to psychopathology but Hemachick (1978) was the first researcher who took a different attitude and differentiates different kinds of perfectionism. He stated that perfectionists are in two kinds of normal type (adaptive) and neurotic (non-adaptive). Normal perfectionists can accept personal limitations and environmental barriers which inhibit them from realizing ideal performance while they see the environment supportive in terms of social assessment and neurotic perfectionists aren't flexible enough so they aren't satisfied with their performance although it is admirable by others, they are always affected by fear and worrisome of failure and because of that see environment non-supportive and threatening in terms of social assessment, neurotic perfectionists don't have the right of making mistake that much, they are critics in evaluating their performances (Ferasat et al., 1990).

### 5. Conclusion

In summary, it can be stated that in most of past conceptualizations, this structure has been described as a personality trait (Hemacheck, 2978) or cognitive style (Bronze, 1980; Pech, 1984). Moreover about that perfectionism reveals itself through non-adaptive behaviors, all of previous researchers (except Hemacheck) agreed.

Current research was aimed to investigate if perfectionism plays a moderating role related to personality traits with life satisfaction and cognitive well-being in students.

The first hypothesis: perfectionism moderates the relationship between personality traits and psychological well-being.

The result showed that personality traits and perfectionism has significant statistical relationship with psychological well-being  $P < 0.01$  and  $F(11 \text{ and } 128) = 9.01$ . These variables can totally predict 44 percent of psychological well-being. Considering the value of coefficient of determination it can also be stated that personality traits predict 32 percent of psychological well-being that through coming perfectionism and its sub-scales this value increased to 44 percent. Therefore it can be concluded that perfectionism is mediator between personality traits and psychological well-being or has moderating effect on the relationship.

Considering t statistics, from the aspects of perfectionism and personality traits only neuroticism, extroversion, agreement and conscientiousness, from the aspects of personality traits and purposefulness, high standards and perceived pressure are the aspects of predictor perfectionism of psychological well-being. The aspects of personality traits predict 32 percent and the aspects of perfectionism also predict 14 percent of psychological well-being.

Researchers didn't find a study based on that perfectionism moderates the relationship between personality traits with psychological well-being but to explain the findings of this hypothesis, some points need to be mentioned here; because perfectionism is one of personality traits has an important role in etiology, pathology and clinical course of mental colonialism (Shaferan et al., 2002) it can have moderating role on psychological well-being. Hoyt and Felt (2002) believe that compared to non-perfectionists, perfectionists face more stress considering their non-realistic attitudes toward life. In addition to common stressing factors for normal ones, perfectionists create pressures because they want to be perfect in many areas. A perfectionist behavior which is derived from perfectionist tendencies for evaluating self and others seriously, concentrating on negative aspects of performance and experiencing low satisfaction, can make stress. Perfectionism can increase negative effects of stress and this subject itself can affect mental well-being that is increasing negative perfectionism causes increasing stress and decreasing psychological well-being.

Second hypothesis: Perfectionism moderates the relationship between personality traits and life satisfaction.

The result showed that personality traits and perfectionism has significant statistical relationship with life satisfaction  $P < 0.01$  and  $F(11 \text{ and } 128) = 5.59$ . These variables can totally predict 33 percent of life satisfaction. Considering the value of coefficient of determination it can also be stated that personality traits predict 23 percent of life satisfaction that through coming perfectionism and its sub-scales this value increased to 33 percent. Therefore it can be concluded that perfectionism is mediator between personality traits and life satisfaction or has moderating effect on the relationship.

Considering t statistics, from the aspects of perfectionism and personality traits only neuroticism, extroversion, from the aspects of personality traits and interpersonal sensitivity and being excellent are the aspects of predictor perfectionism of life satisfaction. The aspects of personality traits predict 23 percent and the aspects of perfectionism also predict 11 percent of life satisfaction. Researcher didn't access to a research investigated perfectionism as a moderating factor between personality traits with life satisfaction but to explain this subject, Wang, Ion and Esleni research (2009) can be mentioned that represented there is a correlation between perfectionism aspects and life satisfaction. In this study, adaptive perfectionism compared to non-adaptive ones and non-perfectionists had higher scores in life satisfaction (Wang, Ion and Esleni research (2009)). People with adaptive perfectionism seem to experience more life satisfaction because they are less stressed for achieving their goals.

Anjet (2009) also investigated the role of perfectionism on life satisfaction of Turkish teenagers. The result showed that having high regularity and criteria predict life satisfaction while disparities between the personal standards and actual performance of person were negative predictor of life satisfaction.

A person who has psychological well-being considers his positive aspects adequately and realistically. Such these people step in their natural area and ultimately accept the responsibility of their behavior and thought honestly (Clark et al., 2014). Naderi (2012) investigated the relationship of perfectionism and social compatibility with psychological well-being in students. The result of this research showed that the relationship of perfectionism and social compatibility is positive, it can be concluded that whatever the rate of positive perfectionism and social compatibility is more; the frequency of psychological well-being will be more as well. In a research namely "investigating the relationship of perfectionism and personality traits in Tehran University students" concluded that there is a positive and significant correlation between perfectionism aspects and neuroticism (such as depression and anxiety).

Third hypothesis: There is a relationship between life satisfaction and psychological well-being.

The results showed that there is a significant statistical relationship among life satisfaction, self-acceptance and well-being total score and there isn't significant statistical relationship among life satisfaction and other aspects of psychological well-being. Considering that life satisfaction is one of cognitive components of mental well-being and one of the aspects of life quality (Diener 2000) psychological well-being refers to a general assessment from thoughts, emotions, attitudes and life satisfaction (Diener 2003). Since the concept of mental well-being isn't adequate for an appropriate life but results show that this structure is considered as an important index for having a good life (Diener, Sapta and Sah, 1999). People with high psychological well-being, evaluate the events and conditions of life positively. On the other hand people, who aren't happy in their lives, consider the events of life as berries for achieving their goals. According to Golman et al., (2005) life satisfaction is the comparison between the current conditions of person's life with criteria which he had determined for himself. People experience high rate of life satisfaction when their life conditions are matched to what they have determined for themselves (Diener, 2000). Satisfaction feeling in different areas of life is one of the components of people's positive attitude toward the world where they live. Life satisfaction has a close but complicated relationship with values and the criteria which people assess them based on their mental perception of luckiness are different.

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## KNOWLEDGE-BASED ECONOMY AND ITS ROLE IN THE RESISTANCE ECONOMY

<sup>a</sup>MANSOUR TORKIANTABAR

<sup>a</sup>*Department of Information Science and Knowledge, Doroud Branch, Islamic Azad University, Doroud, Iran*

*Email: "torkiantabar@iau-doroud.ac.ir"*

**Abstract.** Resistance economy is one of the concepts in today's global economic literature. Hence, it is necessary to provide practical and appropriate strategies to provide grounds for the conversion of science to technology in the country. This will be possible when the knowledge-based companies literally play the role in the economy do not experiencing recession, but in line with the developments in the international community try to achieve innovations and new technologies. Accordingly, the current paper investigates the concept of knowledge-based economy and resistance economy as well as resistance economic requirements using library sources.

**Keywords:** Economy, Knowledge-based economy, Resistance economy

### 1 Introduction

Knowledge is the most strategic resource for competitiveness maintaining and strengthening with effective management of knowledge as one of the most serious challenges organizations, given the accelerated competitive environment changes and environment uncertainty in today's world. Knowledge management turns asset lies in the minds of people to institutional assets so that a wide range of people involved in decision-making have access to this wealth to use it. The first priority of resistance economy is the pressure points analysis. This means to review the foreign powers issues of sensitivity in the use of sanctions. Generally, those points of sensitivity have been our signs of weakness and our dependence on foreigners identified by the enemy, which we should focus on so that to convert weaknesses to strengths and threats into opportunities. It is obvious that being a country under sanctions requires adopting policies and measures causing growing trend in various aspects in addition to maintaining economic stability to the country.

Resistance economy is a practical way to deal with possible sanctions using it can reduce the negative effects of sanctions.

Knowledge-based companies are including institutions with special place in the resistance economy idea by the supreme leader; because these companies turn ideas and knowledge into products and services, and play an important role in the growth and economic development, while can apply to private and public sector participation in the economic development of the country. This is well understood in the speech of the leader of the Islamic Republic of Iran.

Hermans & Castiauu (2007) believed that university is a prime source of knowledge production and the knowledge can flow between private spheres and academia through making connections between university and industry.

In recent years, economic pressures caused by sanctions taken against Iran made Iran to adopt "resistance economy" as a strategy to cope with the situation raised concern among economic experts inside and outside the country. Knowledge-based economy is an important part of realizing the resistance economy with a double importance in today's world.

Although the optimal use of knowledge and apply it consistently to meet human needs attracted the attention of countries especially during the Industrial Revolution, but in today's world taking advantage of the knowledge by trying to overtake countries has become important more than ever in the international arena.

### 2 Knowledge-based economy

Over the past decade the awareness of the role of knowledge in economic development and its importance in the development of knowledge-based industrial activities has been increased.

For example, the Government of Norway in a comprehensive innovation plan 1 highlighted the importance of further research in industry and market research capabilities based on knowledge. However, it is proved that the commercialization of knowledge at the national level is not fully developed (Spellin & Stencil, 2003). Where, human societies move with unprecedented momentum towards a knowledge driven society, evidence and global trends indicate that competitiveness lies in the ability of creation, deployment and transfer of technological knowledge. Hence, we are faced with the worldwide adoption of strategies to increase the effectiveness of activities and transfer of scientific and technological achievements in industry and the market (Izadiyan, et al., 2013). In today's world, knowledge-based economy undeniably plays an important role in the economic development of many countries. The importance of this type of economy is to the extent that many countries make lots of investments to realize it. Recently, there has been considerable attention to this important issue in Iran years but it seems that conditions and grounds must be provided to should be considered achieve the goals. The term "knowledge-based economy" refers to the role of science and technology on economic growth. Knowledge has always been important for economic development, but in recent years the importance and its relation to economic growth is increasing. A certain number of factors, including technological advances, economic globalization, the importance of specialized knowledge, increasing awareness of the importance of knowledge for economic development of a country and the creation of new jobs are related to economic development. This trend shows that the knowledge economy describes the positive effect of knowledge on the economic growth (Kurtic and Donlagic, 2012).

Experience shows that countries that focus on research and benefit from the outcomes have achieved more success in the field of development. What is clear is that Iran to achieve a high level of economic development has no choice but to use the power of their scientific researchers many of them active in universities and higher education institutions that necessitates paying more attention to scientific production of universities and higher education institutes. Accordingly, it must be said that knowledge-based companies that constitute the main elements of the knowledge-based economy are with undeniable role in the resistance economy. The current circumstances of the country require the knowledge-based economy to be out of sanctions.

Knowledge-based economy and resistance economy are interdependent and chained together; because provide the motivation for the use of various opportunities and deal with problems such as unemployment, inflation, economic dependence, inappropriate consumption and so forth each of the requirements of fulfilled resistance economy.

### 3 Resistance economy

Iran's economy has always been subject to the disabilities in international relations due to the impact of the global environment and the ability in different scientific business, political and energy fields, the more recent one would be the economic sanctions on Iran. The proposed plan of resistance economy for retrofitting the economy is a necessity more than ever before as a means of defense and protection of the Iranian economy in times of economic crisis. In fact the proposed pattern is a macro outlook of in the economy requiring the long-term measures (Ebrahimi & Zirak, 2012). One-dimensionality of a country's economy and its negative impact on the dynamics of the economy have been considered by the economic experts for

years and in some ways it can be considered an economic downturn.

Needless to say, oil-dependent economy can cause irreparable damages to country and that's why the tendency to diversify of economic activities and the use all the capacities of the country is a way to achieve resistance economy. Accordingly, reliance on domestic power would be a strong barrier against external pressures to dominate the country's economy. The economic pressure and sanctions is not limited to Iran and much of the countries have experienced this situation for a variety of reasons and still trying to find fundamental solutions to deal with it. In other words, making policies that vaccinates a country's economy against pressure and sanctions and make it be self-sufficient is the core concepts of the words of the leader of the Islamic Republic of Iran as well as many economists and economic experts.

#### 4 Resistance economic requirements

##### 1- pragmatism in economic activity

There should be sustained efforts to work on theories to make them operational in order to be successful in economic activity. The cliché of slogan is a large drop in resistance economy realization with a large gap between rhetoric and action, in other words a country can take steps toward dynamics economic in case that provided it is necessary requirements in practice. According to Iran's supreme leader pragmatic view of the economy requires action, initiative and activity. This means that the country must use all their capacities for entrepreneurship, production and commercialization of scientific outcomes to the best possible use. Realizing the economic pragmatism occurs when it is institutionalized and acculturated among the nation. It also requires the institutionalization of a culture of understanding in the international community. In the current circumstances all countries are planning to expand their economic activities around the world, to achieve high profitability. Countries like Iran have the ability to take advantage of its capabilities in global markets with decent contribution.

##### 2- The knowledge-based economy

The discourse of knowledge economy has been derived from the report, compiled by a group of intellectuals and economists in the 1960s including Firenze Jelapp, Peter Drucker, Daniel Bell implying that industrial societies are becoming capitalist, industrial and knowledge-based economy societies. Manuel Castells is a prominent writer believing that the knowledge is fundamental and new factors of production is in conflict with the traditional argument that land (natural resources), labor (human effort) and capital goods are the three main factors of production (Robertson, 2008). Production and commercialization of science and technology are obvious signs of development of a country. Although science and technology is crucial to the success of communities, experience has shown that without a roadmap and policy for science and technology and to interpret brighter achieve a competitive advantage in the intense global competition is basically impossible in the absence of adjustment, development and implementation of accurate and correct policies and strategies for creating value (Bagherizadeh, 2011). Commercialization of scientific research outcomes in knowledge-based companies is a strategy in response to the country's macro objectives in line with the emphasis on national self-sufficiency, benefit from the ability and talent of young people of the country, resistance economy and achieve development has gained the increasing importance on relying on domestic force in recent years given that our country is faced with problems such as economic sanctions, therefore, identify and explain all the factors affecting the commercialization of scientific research outcomes is very important because the results of the studies will be used in presented or modified strategies in the area of commercialization of scientific research results.

##### 3- Expert human resources

Human resources as smart assets are the greatest assets of any organization. Organizations look at their human capital based on knowledge, competence and capability as a competitive advantage (Abili & Movafaqi, 2007). Human economic efforts have always been toward obtaining the maximum results out of the minimum resources. This tendency can be termed achieve efficiency and higher productivity.

Productivity is a broad concept constituting many aspects of economic and social life of a community, and is interconnected with the community aspiration on achieving economic growth and sustainable development, economic justice, social justice, the elimination of poverty, increase national prosperity, efficiency and effectiveness of management systems and human capital, and thus the ability to interact actively with the global economy, so that productivity will not be achieved regardless of close attention to each of these goals. Ideals of society realization depend on the productivity of the resources, including physical, human and social resources (Qabezi, 2013). No doubt, human resources are the most important factor in all organizational activities. Expert human capital is of a country's economic pillar; because it plays an important role in achieving the economic goals utilizing the intelligence and knowledge.

Creative and efficient workforce is a valuable asset ignoring it is associated with many negative consequences for any country. Resistance economy goals realization necessities all educated and skilled individual's involvement to provide economic success of country through implementation of their knowledge and experience.

##### 4- Domestic production

The national production is main important point in the context of the country's economy driven wheel. The strength of this axis is the guarantor of the country's economic health, self-sufficiency and economic and social independence from various perspectives ultimately leading to economic development and improves the welfare and living standards. Iran benefits from the key factors needed to strengthen national production, such as human resources, raw materials, land and energy and the art of integrating facilities referred to as management in macro and micro level can increase productivity and efficiency in production, decrease waste reduction as well as the use of science and technology to achieve expected boom. The experience of successful countries such as Japan's economy shows that Japan achieved high percentage of economic growth and development in light of the country's national effort and successful management (Asgari, 1993). The country is required to pay special attention to domestic production ultimately leading to economic self-sufficiency to achieve the resistance economy objectives. One of the main problems underdeveloped or developing countries that faced with is the welcomed use of foreign goods that in turn decreases domestic products production. This requires the acculturation. The economic growth and development will never be attained provided that all individuals in a society accept that the only way to self-sufficiency is the reliance on domestic production.

##### 5- Consumer management

Currently, despite considerable progress in the field of industry and technology, man needs to observe the pattern of consumption more than ever. He needs to deal with the problems of individual and social life with the most appropriate solutions without any adverse effects (Kalantari, 2008). Mismanagement principled consumption is one of the main problems underdeveloped or developing countries faced with. This is one of the most important concerns of state and governments in such countries. The consequence of mismanagement causes resource waste and imposes additional costs on the economy. Consumer management plays a major role in the realization of resistance

economic since it leads to saving and efficient use of all resources available in a country.

### 5 Conclusion

Knowledge Production is one of the most important indicators of growth and development but this requires the conditions necessary for the commercialization to turn it into wealth. In today's world wealth creating knowledge has attracted increasing attention; therefore, the scientific community of the county is required to pursue the production of knowledge able to bring the industry and the economy wheel to move and provide grounds for economic growth of the country. Clearly, the application of the produced knowledge is more important and valuable than its production, because the application of science creates wealth and on the other hand, by making use of knowledge helps to launch a variety of small and large industries and thereby contribute to the development of country. Commercialization of knowledge is one of the most important strategies in achieving resistance economy in underdeveloped and developing countries, so far is not taken into account by such countries. Although in recent years the Iranian government has developed programs and measures to achieve this important objective in support for knowledge-based companies, evidence suggests that more effective measures should be taken to reach the ideal situation. One of the most important challenges now the country is facing is lack of applying the results of researches done at universities and research centers without any will to make them applies, as well. In other words, knowledge production costs a lot each year in the country, without any practical measure to transform to wealth, while this can be done with proper planning and help the economic growth and development. According to definition, the economic growth and development are completely dependent two concepts, on the other hand economic growth is a prerequisite for economic development and there would be no economic development unless there is economic growth. However, in today's world knowledge-based companies can accelerate economic growth and development, paved the way for achieving the two concepts. These companies, with fundamental changes in technology and optimum use of the knowledge generated, help the economy with more accelerated move in the path of growth and development and provide grounds for economic self-sufficiency.

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## INVESTIGATE THE EFFECT OF BRAND SELF-CONGRUITY, AWARENESS OF RETAIL, RETAIL BRAND ASSOCIATION AND PERCEIVED QUALITY OF RETAIL BRAND ON PURCHASE INTENTION OF CUSTOMERS

<sup>a</sup>SIAVASH ZANGANEH, <sup>b</sup>EBRAHIM ALBONAIEMI

<sup>a</sup>MA of Business Management - International Business,  
Department of Management, Persian Gulf International Branch,  
Islamic Azad University, Khorramshahr, Iran

<sup>b</sup>Assistant professor, Department of Management, Persian Gulf  
International Branch, Islamic Azad University, Khorramshahr,  
Iran

Email: <sup>a</sup>siavash.zanganeh12@gmail.com,

<sup>b</sup>Ebrahimnaiemi@yahoo.com

**Abstract.** The aim of present research is investigate the effect of brand self-congruity, Awareness of retail, Retail brand association and Perceived quality of retail brand on purchase intention of customers. Present research, in terms of the type of research is applied and in terms of methods is descriptive-survey. The sample size has been selected by using Cochran formula. In first hypothesis; brand Self-Congruity has a positive and significant impact on attitude to retail. In second hypothesis; Awareness of retail has a positive and significant impact on attitude to retail. In third hypothesis; Retail brand association has a positive and significant impact on attitude to retail. Fourth hypothesis; Perceived quality has a positive and significant impact on attitude to retail. In fifth hypothesis; Attitude to retail has a positive and significant impact on purchase intention.

**Keywords:** self-congruity, retail awareness, brand association, Perceived quality, purchase intention.

### 1 Problem Statement

Today, perhaps more quickly than any other time in recent history, competitive business environment is changing (Rakam, 2000). On the other hand, high effect of consumer behavior on intensity of competition in these markets lead to further studies in the field of marketing. In this regard, a deep understanding of consumer behavior without knowing the factors influencing on his behavior seems unlikely. Thus, there is a need to understand the factors that effect on behavioral intentions of consumer. Purchase intention is one of the key concepts in marketing and scientific research in a range of products and services that could be considered for different purposes. For this reason, many marketing efforts are focused on this stage of consumer behavior (Harmon, 1982). Purchase intention is a planning that has been created before actual purchase. In fact, for influencing on customer behavior, must be controlled a step before the actual purchase that is intention to do behavior by customer (Belch & Belch, 2011). Behavior intention indicated the severity of intention and person will to do the goal behavior. Fishbein and Ajzen defined intention as determinant of action in a certain direction. They also defined intention as subjective probability of forming a particular behavior. For example, plan to purchase a particular product has been diagnosed as predictors of actual behavior in the product purchase (Ramayaha et al., 2010). Usually, there is a delay between purchase intention and actual purchase, especially about the products with high complexity and with high intellectual engagement. Totally, purchase intention is a basis to match between purchase incentives and characteristics of desired brands (Moharam and Shavaki, 2012). According to studies conducted, purchase intention is a variable that can be influenced by many factors such as attitude to retail (Doss, 2014). Attitude is a set of beliefs, emotions and behavioral intentions toward an object, person or event. In other words, this variable is relatively stable tendency to a person, thing or event that appears in emotion and behavior (Gholipour, 2007). In order to examine the consumer behavior, attitude also can be defined as follows: evaluational inclination of a consumer in agree or disagree directions of any element in her and his market area (Samadi, 2007). With regard to the importance of attitude as the behavioral variable, the impact of different variables has been investigated on them such as brand self-congruity, brand association, Retail brand association and brand perceived quality (Helgeson and Supphellen, 2004).

With regard to the importance of brand in the retail industry, the aim of present research is investigate the effect of brand self-congruity, Awareness of retail, Retail brand association and Perceived quality of retail brand on purchase intention of customers.

### 2 Theoretical Foundations

**Brand Self-Congruity:** always Self-congruity widely has not been accepted and for a length of time scholars discussed to confirm its importance (Boksberger, et al., 2011; Hughes & Guerrero, 2012; Aaker, 1997; Aaker, 1999). However, the theory has reached a state of general acceptance. Self-congruity's importance has been confirmed in various venues, such as sponsorship events (Mozodier & Merunka, 2011), retail store choice (Willems & Swinnen, 2011), tourism (Boksberger, Dolnicar, Laesser, & Randle, 2011), the housing market (Sirgy, Grzeskowiak & Su, 2005) and even career choice (Nolan & Harold, 2010). In response to progression in self-congruity research that suggested conflicting conclusions about the theory's validity, Aguirre-Rodriguez, et al., (2012) conducted a meta-analysis of self-congruity and found evidence of a robust self-congruity effect. Their conclusions show that "the self-congruity construct is a robust and valid basic for emerging and current consumer identity and symbolic consumption research (Aguirre-Rodriguez, et al., 2012).

**Brand association:** Brand association includes all brand-related feelings, thoughts, images, perceptions, beliefs, experiences, and attitudes (Kotler and Keller, 2006) and is anything 'related in memory to a brand (Aaker, 1991). Such associations may include personality of brand (Aaker, 1997) and relationships (Fournier, 1998).

**Brand awareness:** awareness (Brand) is the probability that, consumers are familiar about the availability and accessibility of a firm's service and product. If an organization has a successful and good brand awareness it means that the services and products of the firm have an acceptable reputation in the market (Gustafson & Chabot, 2007). The awareness of the brand has a significant role while purchasing a service or product and may have control on perceived risk evaluation of consumers and their level of assurance about the buying decision with regard to brand awareness.

**Perceived quality:** Perceived quality define as the consumer's judgment about the superiority or quality of a service or product (Zeithaml, 1988). Also, Yoon and Kim (2011) mention perceived quality refers to evaluation of customers about a brand or a product that meet the consumer's expectation. Hoch and Banerji (1993) indicated that quality is the success factor in the battle between private labels and national brands. Also, some recent research stated that perceived quality is one of the most important factors that affect intention of consumer purchase toward private label services and products (Jaafar & Laip, 2012; Wu et al., 2011).

**Purchase intention:** purchase intention widely has been used as a measure of purchase behavior of consumer after evaluating and considering the services and products (Grewal et al, 1998). Ajzen (1991) defined that intentions represent motivational components of a behavior and level of conscious effort that a person will exert for performing a behavior. Thus, intention of purchase reflects the likelihood in which the consumers will buy certain services or products in the short-term buying decision (Wu et al., 2011).

**Attitude to Retail:** attitude define as long-term organizing of motivational, emotional, cognitive and perceptual processes according to some environmental aspects that person has been

located in which. To measure attitudes to retail is used the offered items by d'Astous and Le'vesque (2003).

### 3 Research hypotheses

Ebrahimi et al., (2012) in research entitled "analyzing factors affecting consumers' attitude and intention to purchase counterfeit products of luxury brands in clothing industry" analyzed the factors influencing on Consumers' attitude toward counterfeit products and intention to purchase such products in clothing industry that has been done in Sari. Study Findings have indicated that the factors as Personal gratification †Value consciousness †Price-quality inference †Social Effect †Ethical Issues †Subjective norm †perceived risk †Brand consciousness † have meaningful effect on attitude to counterfeit products & the impact of Brand prestige †Brand Loyalty †Risk averseness † was not meaningful on view about counterfeit products. Besides †the findings have shown that attitude toward counterfeit products has a meaningful effect on intention to purchase such products.

Haj Karimi et al., (2009) in research entitled "A Study of Service Encounter Quality and Customer Loyalty in Business Service Organizations" have introduced six hypotheses based on conceptual model of the research. Results showed that customer's perceptions of Service Encounter Quality has a positive relationship with the Service Quality and customer satisfaction. Moreover †results show a direct relationship between customer satisfaction and customer perceptions of service quality. Also, results show a positive relationship between service quality and customer's loyalty, and a direct relationship between customer's satisfaction and their loyalty. Finally results show customers loyalty to employees lead to their loyalty to the organization.

Helgesen et al., (2010) in research entitled "Impacts of store and chain images on the "quality-satisfaction-loyalty process" in petrol retailing" have investigated chain image and store image as well as store satisfaction are treated as mediators of assortment, service quality and price, on store loyalty. The findings suggest that chain image and store image are different concepts and that a two-level image building approach is an important aspect for petrol retailing. All the three mediating variables influence store loyalty, but image building (chain and store) seems to be more important than satisfaction creation, mediating about 23 of the impacts of the store loyalty drivers. However, the effects of chain image on store loyalty are entirely mediated by store image and store satisfaction, implying that the petrol station manager to a large extent can influence the drivers of loyalty. Service quality was the decisive loyalty driver.

Gil et al., (2007) in research entitled "Family as a source of consumer- based brand equity" analyses the role played by the family on consumer- based brand equity. In the proposed model, information of a brand provided by both the family and the firm (via price, promotion and advertising spending) is analyzed as a source of consumer- based brand equity and its dimensions. Results prove that positive brand information provided by the family has effects on the formation of brand awareness- associations and perceived quality, and this may lead in turn, to brand loyalty and overall brand equity. The effects of the information provided by the family are higher than those of the marketing variables studied. Results also show that brand loyalty is much closer to the concept of overall brand equity than brand awareness- associations and perceived quality.

Huang et al., (2004) in research entitled "Consumer attitude toward gray market goods" establishes a valid measure of consumer attitude toward gray market goods and investigates the relationships between consumer attitude toward gray market goods and their antecedents. Data analysis reveals that both price-quality inference and risk averseness significantly and negatively affect consumer attitude toward gray market goods.

Decalo (2005) in research entitled "The Effects of Sales Message and Suspicion of Ulterior Motives on Salesperson Evaluation" investigated the extent to which a salesperson's presentation and consumer suspicion of ulterior motive affect salesperson evaluations and purchase intentions. Study indicated that a salesperson's presentation plays an essential role in confirming or discontinuing consumer suspicion and that this process has important implications in the formation of salesperson attitudes. Evidence from Study also demonstrated that these interaction effects are mediated by persuasion-motive attributions. The findings also support a direct link between attitude toward the salesperson and purchase intentions.

### 4 Research Hypotheses

**First hypothesis:** brand Self-Congruity, has a positive and significant impact on attitude to retail.

**Second hypothesis:** Awareness of retail has a positive and significant impact on attitude to retail.

**Third hypothesis:** Retail brand association has a positive and significant impact on attitude to retail.

**Fourth hypothesis:** Perceived quality has a positive and significant impact on attitude to retail.

**Fifth hypothesis:** Attitude to Retail has a positive and significant impact on purchase intention.

### 5 Methodology

The aim of present research is investigate the effect of brand self-congruity, Awareness of retail, Retail brand association and Perceived quality of retail brand on purchase intention of customers. In terms of methodology, this survey is correlational research. Also, present research is descriptive research based on method of obtaining required data and based on its purpose. Present research, in terms of the type of research is applied and in terms of methods is descriptive-survey. In this research with regard to the type of research, the extent of statistical population and the complexity of statistical sample and for faster access to the opinions of respondents, the best method of data collection were considered questionnaire in this study. To formulate principles, definitions and theoretical concepts were used library resources that the most important and useful sources includes internet search engines, information banks and resources and university libraries in the country. In order to evaluate the validity of the data achieved through instrument (questionnaire) readers, advisors, and experts. A group of 30 persons were selected from the subjects and the questionnaire distributed among them. Statistical population of this research includes all customers of Tejarat Bank in Ahvaz city. The sample size has been selected by using Cochran formula. 386 questionnaires distributed collected. Sampling method in this study is non-probability available sampling. Lisrel and SPSS software's has been used to investigate the research hypothesis.

#### 5.1 Validity and Reliability of questionnaires

In the current study, to assess validity of questionnaire were used content validity methods. The internal reliability of the items was verified by computing the Cronbach's alpha. A group of 30 persons were selected from the subjects and the questionnaire distributed among them. Cronbach's alpha values was obtained for total of questionnaire factors is higher than 0.70 which shows that our research variables are reliable and there exists internal consistency between them. Reliability of questionnaire tested in the table 1.

Table 1: Cronbach's alpha coefficient

Factors	Cronbach's alpha
brand Self-Congruity	0.77
Awareness of retail	0.87
Retail brand association	0.81
Perceived quality	0.82
Attitude to Retail	0.83
purchase intention	0.80
<b>Total</b>	<b>0.79</b>

### 5.2 Age of participants

The age classification of participants are; 66 people are Under 25; 160 people are between 26 – 35; 96 people are between 36 – 45 and 64 people are more than the age of 46 (table 2):

Table 2: Distribution of respondents according to age

Age	Frequency	Percent
Under 25	66	% 17.1
26 – 35	160	% 41.5
36 – 45	96	% 24.9
More than 46	64	% 16.6
<b>Total</b>	<b>386</b>	<b>% 100</b>

### 5.3 Gender of respondents

Gender of respondents are: 250 people are man (% 64.8) and 136 people female (% 35.2) (table 3).

Table 3: Gender of respondents

gender	frequency	percent
Female	136	35.2
Man	250	64.8
Total	386	100

### 5.4 Educational background

The educational background of the participants are; 107 people diploma (% 27.7), 223 people Super- diploma and Bachelor (% 57.8), 56 people Master degree and higher (% 14.5) (table 4).

Table 4: educational background

educational background	Frequency	%
diploma	107	27.7
Super- diploma and Bachelor	223	57.8
Master and higher	56	14.5
Total	386	100

### 5.5 Describes the research variables

In table 5, research variables has been explained with regard to descriptive statistics include Mean, Standard deviation, Maximum and Minimum (table 5).

Table 5: Descriptive statistics of variables

Variables	SD	mean	Max	Min	N
brand Self-Congruity	0.77521	3.7503	5.00	1.00	386
Awareness of retail	0.72090	3.5523	5.00	1.20	386
Retail brand association	0.64324	3.4544	5.00	1.80	386
Perceived quality	0.71559	3.4497	5.00	1.60	386
Attitude to Retail	1.01537	3.1943	5.00	1.00	386
purchase intention	0.80826	3.4158	5.00	1.00	386

### Inferential statistics

#### 5.6 Investigate data normalization

The standard error of kurtosis coefficient and standard error of Skewness coefficient can be used in order to Normality tests. If value be less than 2 or greater than +2, normality is rejected. Results show that standard error of kurtosis coefficient and standard error of Skewness coefficient has been between -2 and

2. Thus, data distribution is normal (Momeni, 2008: 32) (table 6).

**H0:** Data are normally distributed.

**H1:** Data are not normally distributed.

Table 6: Elongation and skewness related to variables

	Elongation		Skewness		N
	percentage error	Statistical numbers	percentage error	Statistical numbers	Statistical numbers
brand Self-Congruity	0.248	0.656	0.124	-0.747	386
Awareness of retail	0.248	0.018	0.124	-0.381	386
Retail brand association	0.248	-0.354	0.124	0.154	386
Perceived quality	0.248	-0.199	0.124	-0.50	386
Attitude to Retail	0.248	-0.838	0.124	-.081	386
purchase intention	0.248	-0.246	0.124	-0.170	386

### 5.7 Pearson correlation test

Pearson correlation test has been mentioned in the table 7. With regard to the obtained values, it can be concluded that there is a

significant relationship between the dependent and independent variables in all relationships.

Table 7: Pearson correlation test

independent variable	dependent variable	error Level	Sig	correlation coefficient
brand Self-Congruity	Attitude to Retail	0.05	0.000	0.213
Awareness of retail	Attitude to Retail	0.05	0.000	0.394
Retail brand association	Attitude to Retail	0.05	0.000	0.264
Perceived quality	Attitude to Retail	0.05	0.000	0.510
Attitude to Retail	purchase intention	0.05	0.000	0.505

### 6. Research hypotheses test

#### Model fitting indices

Amount of Chi-square division on df is between 1 and 5 and equal to 3.25. Also, RMSEA amount has been less than 0.08 and is equal to 0.076. In result, Model has a good fit to examine the hypothesis. The following table shows the parameters extracted from the model (table 8).

Table 8: goodness of fit results

	Allowed value	Index value
<b>GFI</b>	>0.9	0.87
<b>AGFI</b>	Nearly one	0.82
<b>NFI</b>	>0.9	0.92
<b>RFI</b>	>0.9	0.89
<b>IFI</b>	>0.9	0.94
<b>NNFI</b>	>0.9	0.92
<b>RMR</b>	Nearly zero	0.068
<b>CFI</b>	> 0.9	0.94
<b>PNFI</b>	> 0.6	0.69

### 7. Research results

#### 7.1 Analysis of hypotheses

**First hypothesis:** brand Self-Congruity has a positive and significant impact on attitude to retail.

Standard coefficient for this hypothesis is equal to 0.22 that is between -1.96 and 1.96. Also, significant number for this hypothesis is equal to 2.58. Since this number is more than 1.96, it can be concluded that first hypothesis is confirmed. In other words, brand Self-Congruity has a positive and significant impact on attitude to retail. Result of this hypothesis is consistent with research of Doss (2014) and Doss et al., (2014).

**Second hypothesis:** Awareness of retail has a positive and significant impact on attitude to retail.

Standard coefficient for this hypothesis is equal to 0.33 that is between -1.96 and 1.96. Also, significant number for this hypothesis is equal to 3.39. Since this number is more than 1.96, it can be concluded that first hypothesis is confirmed. In other

words, Awareness of retail has a positive and significant impact on attitude to retail. Result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014).

**Third hypothesis:** Retail brand association has a positive and significant impact on attitude to retail.

Standard coefficient for this hypothesis is equal to 0.29 that is between -1.96 and 1.96. Also, significant number for this hypothesis is equal to 2.15. Since this number is more than 1.96, it can be concluded that first hypothesis is confirmed. In other words, Retail brand association has a positive and significant impact on attitude to retail. Result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014) and Ebrahimi et al., (2011).

**Fourth hypothesis:** Perceived quality has a positive and significant impact on attitude to retail.

Standard coefficient for this hypothesis is equal to 0.33 that is between -1.96 and 1.96. Also, significant number for this hypothesis is equal to 4.17. Since this number is more than 1.96, it can be concluded that first hypothesis is confirmed. In other words, Perceived quality has a positive and significant impact on attitude to retail. Result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014), Ebrahimi et al., (2011) and Jen Hung et al., (2004).

**Fifth hypothesis:** Attitude to Retail has a positive and significant impact on purchase intention.

Standard coefficient for this hypothesis is equal to 1.01 that is between -1.96 and 1.96. Also, significant number for this hypothesis is equal to 8.87 (table 9). Since this number is more than 1.96, it can be concluded that first hypothesis is confirmed. In other words, Attitude to Retail has a positive and significant

impact on purchase intention. Result of this hypothesis is consistent with research of Doss (2014), Doss et al (2014), Ebrahimi et al., (2011), Jen Hung et al., (2004), Decalo (2005) and Ghazizadeh et al., (2012).

Table 9: Analysis of hypotheses

hypothesis	independent variable	dependent variable	Path coefficient	T statistics	Result
1	brand Self-Congruity	Attitude to Retail	0.22	2.58	confirmed
2	Awareness of retail	Attitude to Retail	0.29	2.15	confirmed
3	Retail brand association	Attitude to Retail	0.33	3.39	confirmed
4	Perceived quality	Attitude to Retail	0.33	4.17	confirmed
5	Attitude to Retail	purchase intention	1.01	8.87	confirmed

## 8 Conclusion and Recommendations

The aim of present research is investigate the effect of brand self-congruity, Awareness of retail, Retail brand association and Perceived quality of retail brand on purchase intention of customers. In first hypothesis; brand Self-Congruity has a positive and significant impact on attitude to retail and result of this hypothesis is consistent with research of Doss (2014) and Doss et al., (2014). In second hypothesis; Awareness of retail has a positive and significant impact on attitude to retail and result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014). In third hypothesis; Retail brand association has a positive and significant impact on attitude to retail and result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014) and Ebrahimi et al., (2011). In fourth hypothesis; Perceived quality has a positive and significant impact on attitude to retail and result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014), Ebrahimi et al., (2011) and Jen Hung et al., (2004). In fifth hypothesis; Attitude to Retail has a positive and significant impact on purchase intention and result of this hypothesis is consistent with research of Doss (2014), Doss et al., (2014), Ebrahimi et al., (2011), Jen Hung et al., (2004), Decalo (2005) and Ghazizadeh et al., (2012). Based on the obtained results, the following suggestions are offered: Marketing decisions related to the brand should be taken in the long term by marketers. Given that the store brand awareness among customers can provide a ground for increasing their purchase intention, one of the most effective tools to inform the people about brand is effective and targeted advertising. Should be expressed the clear and specific definition of the brand in the first place that be easily recognizable and persuasive. Brand awareness is the first step in creating a positive attitude and brand loyalty and reflects the customer ability to identify a brand in mind. Managers and marketers should be adopt cultural practices and extensive advertising for brands. No organization cannot be confident about a positive attitude and customer loyalty and all organizations at every opportunity can increase their calls and relations with customers; Providing services during the purchase and after purchase to customers especially the principal customers for creating favorable image in them; Creating the special customers database, relationship with them and encourage them to do mouth to mouth commercials; providing products with expected quality of customers or products beyond their expectations.

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## EXPLORING THE NATURE OF ECONOMIC CRIMES IN IRAN AND FRANCE LAWS

<sup>a</sup>HABIB DANESH, <sup>b</sup>SADEGH ALBUGHOBESH

<sup>a</sup>Department of law, Faculty of Humanities, Persian Gulf International Branch, Islamic Azad University, Khorramshahr, Iran

<sup>b</sup>Department of law, Faculty of Humanities, Persian Gulf International Branch, Islamic Azad University, Khorramshahr, Iran

Email: <sup>a</sup>habib.danesh.hb@gmail.com, <sup>b</sup>Kasnyhe@gmail.com

**Abstract.** For the prevention and fight against economic crimes the present vacuum should be solved. This approach, is evident in terms of criminology and the criminal aspects, since past few years, in the judicial discourse of the country's executives and legislatives, especially in the promoting the health of administrative system law and fighting corruption due to focus on the situational -Technology prevention, Islamic Penal Code, to remove these crimes of the postponement, suspension, as well as the law on combating the smuggling. In this study, by matching the criminal policy of Iran and French, in line with the fight against economic crimes and money laundering, we provide useful and constructive ways and express the legal vacuum in order to prevent economic crime.

**Keywords:** Crime, Economic crimes, Comparative law, Crime, Crime prevention

### 1 Introduction

Economic corruption and fighting against it in many different countries, including France and its economic crisis and embezzlement and our country have been considered as major issues. The most important reasons for economic corruption in the public sector is related to the governmental undertakings and includes trade restrictions, industrial subsidies, price controls, multiple exchange rates, low wages in the public and business services, and natural resources such as oil. Economic corruption and slow economic growth reduce investment and ultimately cause the country's lack of economic goals development and tax revenues will be decreased and quality of economic infrastructure and public services will be reduced and as a result crime will be increased.

Crime is a multifaceted phenomenon and has always attracted the attention of sociologists, psychologists, lawyers and scholars in the field of economy.

But the study of economic crime includes: 1. Knowledge of miscellaneous laws. 2. The priority of Iranian criminal policy that is the fight against this crime. 3. The political and economic transition of the country and along with, the need for new rules and updating the Iranian criminal law. 4. The high rate of economic crimes. 5. Complexity of these crimes and 6. The devastating and global effects of these crimes.

Economic crime is one of the new concepts of modern society that has been increasingly a cause for concern in terms of its threat to the stability and security of societies, traditions and values of democracy, ethical values and justice, sustainable development and the rule of law. Warning on the risks and notifying it to the community and especially the government in Iran, was originally developed by academic circles, in 1940, Sutherland introduced the concept of white-collar crimes. Crimes which until that time had not been considered by criminologist. Thus, this category of crimes and their perpetrators, with a delay catches the criminological attentions.

What is important in the analysis of criminology and economic crime, is explaining the concept in order to understand the different aspects of economic crimes, causes, actors and how to deal with it. At first, explaining conceptual framework, defining economic crime and its reflection in Iranian law, then basic characteristics of this crime will be considered. Finally how to prevent these crimes, especially in the field of companies will be discussed ((Danesh, 1998, Delmas, 2003).

### 1.1 The importance and necessity of research

Since the importance of these crimes in the country leads to the formation of the economic headquarters to fight corruption and an increase in crimes resulting from economic corruption has become a major problem in developing countries, some believe that in principle there is no way to solve this problem. Some also believe that punishing the perpetrators of corruption is the only solution to deal with economic crime (Goudarzi, 2006, Habibzade, 2007, Hosseini, 2005).

### 1.2 Research Purposes

- 1- Exploring the nature of economic crime in Iran and France
- 2- Exploring the specific characteristics of economic criminal law
- 3- Analyzing the causes and the prevailing economic conditions in the society
- 4- Exploring the relationship between crime and poor economic conditions

### 2 Method

Research method in the present study, like most humanities research is library research method and documentation. Therefore, in this regard, domestic and foreign books and articles, websites and all documents that are relevant and serve our desired goals, will be used.

### 3 Results

#### The distinction between economic crime and general crimes

#### The First Topic: criminological criteria related to criminal act

These criteria are linked to a criminal act and have been considered in two categories, direct and indirect.

#### First clause: Indirect measures

##### A. Geographical criteria

The physical environment is same God-given environment, weather, climate and atmospheric conditions, that influence human behavior and the social environment is family, school, university, workplace, and the political regime of the country.

##### B. professional criteria

Economic crime occurs in line with an individual's professional, legal and legitimate activities. Therefore, when a person in a business environment abused his superior position and has illegal relationship with woman who is working for him, he has committed general crimes.

##### C. perpetrator's evaluation criteria of a criminal act

The purpose of the criteria is the conception that perpetrator has about his act. This means that whether he considers himself perpetrator or not? And also what is the attitude of other members of society about the committed crime?

#### Second clause: Direct Criteria

##### A: Rules

In our country in recent years many comments and contents have been discussed in terms of economic corruption, economic corruptor, Rentiers and Aghazadeh and the most important legal resources that are studied in this regard include (Jalalifarhani, 2007):

A: Article 49 of the constitution in 1358 has been set as a revolutionary response to the political system, and talks about lawful and unlawful and illegitimate wealth.

## B. Doctrines

Since Iranian law does not provide a measure of economic crime, this legislative vacuum is resolved with the lawyers' doctrines and theories. The discussion techniques in exclusive criminal books is that financial crime are discussed under the heading of crimes against property. In other words, the term economic crime is a new heading and in there is not the Exclusive criminal books.

### Article Two: The presumption of innocence

In the fight against organized crime the burden of proof is shifted (paragraph 7 of Article 12) that this deviation from the principles of human rights with many precautions is acceptable in combating against serious and complicated crimes. In other words the intensity of crime danger, violates the principles of human rights and has been violated the citizens' right to privacy and the government are allowed to limit the principle of bank customers' accounts privacy.

### First clause: non-penal prevention

Policies and procedures in financial corruption prevention: Article 5 of the Convention has urged member states that approve transparent rules in order to fight and prevent corruption and evaluated these documents and administrative measures regularly and ensure their sufficiency, lack of ambiguity and being up to date to prevent and fight against financial corruption.

### Second clause: Penal prevention

Criminal prevention is also discussed in this convention and can be examined by following directions:

#### 1- Resorting to the system of Sanctions:

Article 12 of the Convention addressed the sanction. Must be remembered that in the economic criminal law, sanctions are not necessarily penal and other types of sanctions such as administrative, disciplinary, professional, and civil law is also applicable in a case. While civil sanctions can be divided into two types and sometimes refers to compensation, property returning and reparations and sometimes refers to the rights of citizens and is associated with the each person's rights as a member of society. Therefore exclusion from participation in bids, which has been mentioned in paragraph one of Article 12, is a civil sanction.

### Third Article: criteria related to economic criminals

The perpetrators of economic crime mainly have high IQ and social status and commit crimes in the form of natural or legal persons. However from the perspective of criminology, personal characteristics deemed to be important in this context. Criminologists believe that in an economic context and more generally and more broadly in society, we are faced with such a phenomenon. In every society, a series of objectives and purpose such wealth and job promotion for economic actors and directors has been plotted, and at the same time, it is assumed that in any society, legitimate suites and means to achieve the objectives have been presented to people. For example, for is a Iranian Muslim family, going to Hajj is a target. In addition to religious aims, it is a sign of social success and distinction.

Explaining the characteristics of economic crime and the distinction criteria between economic and general crime provides a better understanding of criminological theories that have been proposed in the field of economic crime. In the next chapter we will study these theories in the five groups. First we

will describe the Jean Pynat's criminal personality theory and after a review of Merton's sociological theory, we will describe three sets of environment-based economic theories based on political and economic environment. At the end, Merton, Korakis and Bayer's multifactorial theories will be examined (Kosha, 2005).

## 4 Discussion and Conclusion

Today even in France because of the relationship between economic crime and other forms of crime, especially organized crime, Stability and security of societies, values of democracy, ethical values and justice have been compromised and certainly in the long term sustainable development and the rule of law are also at risk. Thus this crime is no longer a local matter but a transnational phenomenon that affects all societies and economies and that is why international cooperation, especially civil society and non-governmental organizations are very important in line with preventing and combating it, quantitative and qualitative dimensions of this crime have caused concern that decision-makers and perpetrators of criminal policy regarding the control of these crimes be more sensitive than ever and consider the risks and criminal acts for political order increasingly (Moazzami 2010, Moazzami 2010, Najafi, 1999, Pradel, 2003).

Prevention methods are reasonably different based on the definition of economic crime, the reason of committing this types of crime at the macro level is related to a series of factors like production level, distribution and consumption, the kind of economic system and current culture in an open society, At the micro level opportunistic situational factors are more important, so prevention strategy at the micro level and in the short term, is technical-technological situational prevention that usually use difficult and risky techniques for offenders to reduce the opportunities.

By examining the legal texts between Iran and France related to economic crimes such as bribery, embezzlement, disruption of the economy, tax crimes, smuggling, we concluded that due to the turbulence and dispersion in Iran regulatory criminal policy, basically, we cannot explain criminal a coherent policy, and purposeful modern and it will be compared with known and scientific models. However, the results obtained from this study can be expressed within clauses:

Regulatory criminal policy of the country in the face of some instances of economic crime appears to be incomplete. An example of this is discussion of crimes as bribery and receiving pursuant in international transactions. In discussing the criminalization of criminal acts that damage economic system, cleansing the proceeds of crime or money laundering is one of the most important issues that with the approval of Parliament, and confirmed by the Guardian Council, In fact, the criminal policy has a tool at its disposal to confront and fight against this phenomenon.

With regard to the legal reactions, it can be said that the nature of economic crime is so that shape the laws differently. Although about definition of this crime and its various manifestations there is no comprehensibility. But by the lawyers' attempt there is a total conclusion in this field. That defines it under that economic and criminal law. In terms of economic crime there are special measures for the prevention procedure. Economic criminology is an exclusive criminology, the study of a particular crime and the causes of it. In terms of economic criminals there are specific methods of reform and socialization them. Similarly, in the international documents related to economic crimes we can witness the assigning specific material to these crimes from different aspects such as prevention of crime and to reform and rehabilitate offenders. Economic criminals in terms of being consistent with society are ordinary persons and consistent and keep pace with the rules of society, and they use the void norms governing their working environment and the context to commit a crime. White-collars

despite having many facilities want too much social success and because they do not have the legal means they resort to illegal means and methods. For the prevention and fight against economic crimes vacuum should be solved. And prepare the community to pave the way in line with preventing the commission of these crimes.

According to the results Toda – Yamamoto test, it seems that by economic development, economic crime also increases. Also poverty and crime, have a bidirectional relationship: Between economic crime and income inequality, there is a causal relationship.

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## COMPARE EXPERTISE IN THE LEGAL SYSTEM OF IRAN AND FRANCE

<sup>a</sup>MASOOD FROUMANDI, <sup>b</sup>MEHDI SALIMI

<sup>a\*</sup> *Postgraduate of Law, Penal and Criminology orientation, international student at Azad University of Bandar Anzali,*

<sup>b</sup> *Doctor of Law, Penal and Criminology, International Islamic Azad University of Bandar Anzali*

Email: <sup>a</sup>Masood.froumandi@gmail.com, <sup>b</sup>salimi40@yahoo.com

**Abstract.** The progress of science and technology in all fields, has caused the magistrate inevitably refers the matter to an expert in discovering and proving the crime. This study has been written with the aim to compare expertise in proving crimes in Iran and France law through the library and taking notes and in descriptive – analytical way. It concluded that, in Iran's rights influenced by the jurisprudence, an expert's opinion is applied just as statistics, to judge for proving the charges and it is not considered an independent reason to prove the crime. However, in French law, expertise is remembered as an independent reason, and with regard to new technologies, the new methods of discovering and proving the crime is used.

**Keywords:** Expertises, expertise theory, comparing, crime detection, crime proof, jurisprudence, Iranian law, French law

### 1. Introduction

Today, advancements in science and technology revealed their effects in all areas, including tools to detect and prove crimes, so that, in an era that is called the era of "scientific evidence", even traditional evidence, such as witness and confession, in some cases, are measured with the help of new evidence.

The most important feature of the scientific period is fading, non-empirical documentation, or in other words, the spiritual in the criminal justice system. In the past, due to the lack of development and progress of science, on the one hand and public opinion in a firm position of spiritual and esoteric matters, on the other hand were the main evidence for expressing to prove the crime was summed up in confession, testimony, and ultimately, the magistrate's knowledge. Due to the lack of tools and necessary facilities, even the magistrate's knowledge also, mainly depended on his inner perceptions. However, with the passage of time and abandon of non-experimental affairs and the emphasis on verification of all events through experimentation, the importance of this type of evidence has significantly reduced. Even the experts welcomed this and considered it closer to the administration of justice, because, disadvantages and problems related to obtaining a confession or testimony, or even authentication and real authority of the judge, was not hidden from anyone. Everyone wanted a fair and impartial approach, and proved reality and truth of a claim, that, obviously, the issue is very important in criminal allegations, due to its heavy consequences. Therefore, little by little, the tendency to scientific evidence, in terms of criminal justice increased.

The evidences that cover a wide range of measures, scientific and technical examination, are very diverse, so that providing an exhaustive list of them seems very difficult. Measures, such as research and local examinations, review the material evidence or physical evidence, scientific and technical examination, audit and inspect the premises, confiscate documents and data, interception of correspondence and communications, audio and video recording and many others actions will be done after the crime, in order to uncover the truth and achieve the main culprit. Many of these discoveries have been considered as "judicial circumstantial and hearsay evidence" in Iranian and France criminal procedure. The legitimacy of obtaining reason will be emphasized in obtaining circumstantial and hearsay evidence in the light of research and Local Examinations and resorting to scientific and technical measures, rules and legal regulations, particularly respect for the rights of individuals with human dignity and full judicial supervision over these measures to protect the credibility of enforcement, criminal justice.

With this introduction, the importance of expertise in general, the purpose of this article is to answer two important questions: (Taddayon, 2012) does expert opinions have equal importance in the rights of Iran and France. In addition, (Diani, 2005) whether the expert's theory in the Iranian law, which was affected by the jurisprudence has differences in terms of proof with French law.

In this article, with a comparative look (similarities and differences), we will study the expertise and its importance in the rights of the two countries and the new evidence that will be obtained from the Expertise in the rights of Iran and France. Therefore, the expertise differences and its share should be determined in the rights of the two countries, in terms of proof.

### 2. Expertise (scientific and technical examinations) in Iran and France right

Development and progress of science and technology in all fields has caused that, in the discovery of many crimes and even their proof, the judge will be unable to take steps to prove the crime without recourse to experts. Therefore, he has to vote according to people who, because of their expertise in a particular science or technology or even having experience and expertise and skill, have the necessary ability to illuminate the subject.

The best example of Justice Statistics is expertise. It so happens that, due to the lack of magistrate's dominance, to the subject and personal information, to recognize, the need to refer to the experts, meaning the technical experts is required, that the law has been interpreted as an expert of the people. With the expertise, the degree of specialization or expertise will be used to judicial solution and help judge, in other words, "experts will help the judge in knowing the truth in this case."

The evidence of expert's knowledge is not enjoying the senses directly, but he understands the issue through intellectual deduction and other evidence, and his credibility and expertise authority is based on respecting the terms and legal conditions and these features split it from the testimony.

Expertise, as an important judicial jurisdiction, by examining the "symptoms and signs that do not lie" is considered the language of these symptoms and by examining these signs and symptoms, helps the proceedings in creating the knowledge and judicial certainty. That is why, in an age of scientific evidence, the expertise should be called as criminal evidence Queen (Nejabati, 2008).

According to the Code of Criminal Procedure of Iran, "the experts will be invited to come, when their comments will be necessary for the scientific or technical or special knowledge ". It is the opposite concept that, when the magistrate has special expertise, or for example, "if the court finds that the value of the property is determined equivalent to collateral, expert opinion is not needed to be granted". So, we can say, cases referred to the experts is when a judge is incapable of detecting true, that in this case, it refers to experts and obviously, referring to the expert is required, when the specialized technical issue is unknown to the judge and this issue should be clarified for his conscience. Obtaining technical and specialized aspect of the issue is with the magistrate, because, identifying thematic issues is with him, and he must detect the issue with considering his limits of jurisdiction, having or not having technical and specialized aspect, and take appropriate action.

Study the Supreme Court and High Court of Judges is an indicative of the authorities' tendency of the more issues referred to experts and this matter is justified by technical progress and complicating matters which were simple in the past. However, at the same time, "if the opinion of experts does

not match with the circumstances known to the expert, the prosecutor rejects the expert opinion justifiably, and refers the subject to other experts ". The expert will take action in due time, to offer expert opinion and fulfill his mission, and after completion of an expertise operation, he gives his result and report on his work, to the reference which has given a mission. Expertise's commenting should be explicit and legitimate and, therefore, the expert cannot leave a comment in general, and should not justify his opinion with scientific basis about the issue, and he should note the tips and explanations that are necessary to explain the theory fully. This theory has judicial jurisdiction and the recognition of accuracy or inaccuracy of that depends on the dealing judge and if, it does not match with the circumstances and certain condition of the issue, the court does not comply."Expert opinion is one of the Evidence to prove claims, unless the judge decides that, it does not match with the truth, then, if necessary, other experts will be used. Therefore, if the theory of Forensic Medicine appeals the judges and, the authority diagnoses that theory consistent with the reality, it must be acted accordingly. "

In Criminal Investigation Act 1810 in France, the expertise subject was unforeseen, and it was the tenor of the provisions article of this Act that was about police operations and allowed the police to resort to the expert, in investigating the suspicious deaths, the legislator's attention on the subject was concluded. The silence of the law of criminal investigations in legal experts was quite reasonable, because "in the expert, it is assumed that we can refer to the expert, who has required knowledge and expertise, while, in 1810, scientific basis and the number of experts was not enough" and the only available specialist was a doctor. The judges also, in the silence of the law, called the experts as witnesses to the court. However, today, in French law, the expert does not count a witness, that his report has the value of simple information and the court infers the results (Jafari, 2006).

According to the provisions of the French Code of Criminal Procedure, the judicial police officer, directly in research related to evident conditions, or according to the city prosecutor's permission in basic research can refer to qualified persons if necessary for technical examination and analysis, for example, he invites the tax inspector to participate in the research. Any investigation authority or trial, "If a technical issue has been raised, may, directly or at the request of prosecutors, or parties, commands to expertise."

Therefore, the legitimacy of obtaining reason requires complying with legal terms and conditions from judicial authorities and experts during expertise operations, obtaining the reason in a way that, while respecting the rights of defense, maintaining their probative and judicial value in Criminal procedure process. Because of that, in the French and Iranian criminal law, the expert reports, in most cases, are prepared with the participation and cooperation of the parties, and for them, the right to object to the expert report, is predicted. In criminal proceedings in France, following the ratification fifth law in March 2007, the principle of adversarial presence and the expertise has been strengthened. So that, until this date, people did not inform the subject of expertise and expert missions was specified in secret at the court office. However, then, according to Article 1-161 of the Criminal procedure Code, "the copy of the expertise decision instantly, will be sent to the city prosecutor and lawyers and they have a ten-day respite... to request the magistrate, to modify or complete the questions posed for the expert, or append an their chosen expert... to the expert or elected expert. " These regulations are the full respect for the rights of the defense and adopt the principle of hearing person and, consequently, it is followed by a better monitoring of compliance with the principle of legitimacy for obtaining reason.

### 3. Expertise in genetic and biological evidence in the criminal law of Iran and France

The use of ways, which provide the access to biological evidence, such as blood tests and "DNA", are not so well known in Iran criminal proceedings and judicial process and limited applications are considered for them. In a letter dated 03.Oct.2001 with No 01.07.1137, Legal Medicine Organization, some points can be concluded about the facilities of the organization in the application of the "DNA" test and the use of the procedure of the scientific method. First, the resources of Forensic Medicine, for the "DNA" test and its applications, in judicial matters is in order to help identify individuals, or remaining parts of the human body, at scenes of crime. Most activities in this regard include identifying parents and children, determining the claimed paternity and proving the existence of the father, determining and diagnosing individual identity and proving or disproving the existence of kinship relations with other persons, identifying the culprits from the effects and materials at the crime scene. In addition, helping identify and verify it when the bodies are mutilated or remains of bodies found in different places and determining the sex of the unrecognizable bodies and aborted fetuses and finding patches at the crime scene.

Second, the first step in testing "DNA" is the sampling and because of the sensitivity and importance, and to enhance the quality of the samples and prevent potential abuses in the process of sampling, taking samples of patients is outpatient and takes place only in the presence. Regarding the dead bodies, good sample will be taken in certain circumstances, under forensics supervision, and promptly will be delivered to the laboratory.

Regarding the fingerprints as well, according to Article I of the Regulations, following amendment to a single article, canceled fingerprinting approve on 25.Sep.1989 by the Parliament, approved on 27.Sep.1989 by Council of Ministers, they attempt to fingerprint in six occasions. The most notable is in the case of a person who applies for Police Clearance with the introduction of competent authorities, those who go to prison with the order of the judicial authorities. In addition, those who are condemned to non-prison punishments, such as flogging and defendants and suspects of judicial and law enforcement, in order to keep criminal records, check the identity and background of potential abuse. They are subjected to fingerprinting (Jalali Farahani, 2007).

In Iranian criminal law, unfortunately, no certain rules can be seen about personal privacy, especially their physical privacy, and only we can confirm respecting for the privacy of persons from the tenor of some provisions in a single article of the constitution and the law rapport Legitimate Freedoms and Protecting Citizens' Rights. In the second chapter of the Privacy and Protection Act, which has not been legal, the privacy of physical persons has been emphasized and human dignity and the rights and freedoms associated with has been considered inviolable. Searching human internal organs is banned and judicial competent authority only issues examination of internal organs when there are strong suspicions that, the result of this examination can help to prove the crime. Searching internal organs should be done with the use of accepted medical procedures, by a physician, and possible by medical experts. It is only applicable if using other legal methods will be impossible or ineffective.

Blood samples from people as a proof of guilt, depends on searching internal organs. Article 12 of the bill, stipulates: If the suspect or defendant resist in the search of internal organs. Authority of Justice can take action to the extent that is reasonable to neutralize his resistance. However, in the process of Iranian criminal procedure, blood samples or other fluids, in order to perform experiments and different biological tests do not need the beneficiary's consent. Even crimes that can justify resorting to "DNA" and blood tests have not been specified and

this could be contrary to the principle of respect for the privacy of individuals, and distort the legitimacy to obtain the evidence. The situation is the same for searching foreign objects in the body. During the investigation, sometimes searching foreign objects in the body of the victim or perpetrator can be useful in uncovering the truth. However, the question is whether to search and inspect the internal organs of persons is possible. If the victim is, deceased or when the victim and the perpetrator are alive, and the parents accept that this search takes place, these actions will be legitimate and evidence will be obtained from legal and acceptable manner (Hasani, 2006). However, if persons reject searching and inspections of objects in their body, in principle, it is unacceptable that the judge can violate the principle of respect for the body and the will of the people, and in the lack of law, directly, he intervenes without legal permission. Now, in the Iranian criminal law, there is no specific law in this area and in the silence of the legislature, some prosecution authorities issue order of inspection and testing individual blood of the accused and suspects, in some cases, such as seized drugs and drinking alcohol and addiction (Rassat, 2007; Guéry, 2007).

In French criminal law, in certain cases, people carrying drugs that hide the drugs inside their body, when they cross the border, if the customs authorities suspect to them, with the agreement of them, they will be subjected to medical review. However, no wisdom and decisive required action can be used and in practice, with monitoring the people, the issue is resolved.

In the sampling of blood and exhaled air to those suspected of drinking alcohol or taking drugs, French lawmakers considered Criminal penalties for those who reject sampling. However, there is no physical coercion prescribed by law out of respect for the rights and freedoms of individuals. According to Article 4-234, rules of the road, when, tests the amount of alcohol in exhaled air gives the permission to prove the existence of the alcohol, or when, suspected people reject the test, by analyzing exhaled air or through medical, laboratory and biological analyzing of a blood sample, they can address the issue. The lack of acceptance of these investigations by the driver has the driving punishment while intoxicated with alcohol (up to two years in prison and a fine of up to 45,000 euro). According to articles 2 and 1-3354, the food and alcoholic beverages rule, the discovery of crimes or misdemeanors or traffic accident, which appears to have been under the influence of alcohol, the police are obliged to do medical and biological laboratory research, referred to Article 4-234 rules of the road, on the persons committed the act. The lack of acceptance of these investigations will follow up to one year in prison and a fine of 45,000 euros.

Article 1-235 rules of the road, the people who drive under the influence of drugs, have been raised. If the accident results in death, the police should perform medical investigations of all drivers who were involved in this accident, and when, the answer is positive, or testing is not possible or drivers do not accept these investigations, police are analyzing (medical, laboratory and bio), to prove the drug use. If the accident leading to injury, doing these measures is optional, however, denial of accepting the measures will have up to two years in prison and 45,000-euro cash.

Officers of the judicial police, during the investigation, can perform external sampling in the people that there is one or more reason for involvement in crimes. These sampling permits comparisons with the effects and the evidence provided for the necessities of the investigation. These officers, also can list the signs, especially those of the fingers, palms or shooting. These symptoms are kept in particular papers. All of these measures carried out with the consent of the beneficiaries and lack of his consent is punishable by up to one-year imprisonment. Taking fingerprints and photographs as well, could also be made in the process identity investigation.

However, regarding obtaining reason through "DNA", France had no legal regulation for a long time in this regard, until the rule June 17, 1998, was enacted about the nature of sexual offenses and victim child protection. This was raised for the first time, in Article 54-706 of the Criminal Procedure Code (National Securities auto genetic effects) that have been completed by the circulars December 14, 1998 and its Regulations, on 18 May 2000, relating to securities of genetic effects and the central unit storage of biological samples. The judicial procedures confirmed the acceptance of this type of reason.

According to the first paragraph of Article 54-706, Code of Criminal Procedure (National Securities autogenetic effects, which is under the supervision of a judge) is focusing on the genetic signs of biological symptoms and genetic effects of sentenced persons, for one of the above charges, in Article 55-706, in order to facilitate the identification and prosecution of the perpetrators.

Therefore, genetic sign documents are contained signs of "DNA" taken from the scene of the crime that the committe is unknown and genetic signs of people with definitive sentence, to one of the crimes mentioned in Article 55 of the Act 706. The documents are under the supervision of a judge and in practice, they are under the supervision of the prosecutor of Paris. Genetic signs documents are, briefly, about the perpetrators of sexual crimes, crimes against humanity and crimes and misdemeanors or intentional injury to life of persons, torture and acts of cruel, deliberate violence, drug trafficking, human trafficking, prostitution, exploit for begging and child endangerment, theft, extortion, fraud, vandalism, damage to the fundamental interests of the nation, terrorist acts, fraud in coins and concealing crimes or laundering proceeds of crime.

Generally, in the case of people non-compliance with the necessary sampling, there are three different procedures in different countries. In some countries, lack of acceptance these measures has the punishment of imprisonment or a fine, others have permitted the attorney so that according to the evidence of the crime, infer the results of this possible rejection. Another group of countries accepted the coercion and requirements, in order to do sampling. Some points that can be inferred from Article 56-706 of the French Code of Criminal Procedure. First, whenever the subject of a convicted person will be with ten years' imprisonment for crimes or misdemeanors, the sampling can be done without the consent of the beneficiaries and, therefore, the concept of the rule of law is a resorting license to coercive measures. Secondly, in other cases, rejection of biological sampling has up to one year in prison and a 15,000-euro fine, and the directors of research cannot resort to coercive measures. Thirdly, doing or start doing exercises to replacing samples of biological material for a third party, instead of their own biological material has a punishment of up to three years in prison and a 45,000 euro fine.

#### **4. Expertise of Electronic Evidence in Criminal Law in Iran and France**

In the field of ICT, two technologies, meaning the computer and telecommunications have a decisive role. Computers facilitate information processing and communications disseminate this processed information has created radical changes in the twentieth century. Because, with the discovery of prodigious capabilities, resulting from the combination of these two technologies, a revolution has been in the field of ICT that its peak can be seen in the emergence of global computer information networks. These networks, which are composed of many computer systems connected to each other, communicate with each other with the help of advanced technologies of telecommunications, and create a space with quite distinct characteristics from the physical world, which some call it virtual space and others call it cyberspace. Cyberspace is (emerged electronic integrity through global communications of the creation, storage, process and transmission of electronic data means with simulation and virtualization features). This potential space has

no limit and no central authority, so that "anonymity, fugitive reasons, lack of boundaries, pale police presence, instant communication with a simple touch, the growing complexity" has made the cyberspace to a great environment for offenders. Because, this space, like other aspects of human social life is not spared from a phenomenon called crime, so that, what is now known as cybercrime, covers two categories of offenses. The first group is offenses that, like they exist also in the physical world and cyberspace without changing criminal elements, with features that puts in the hands of criminals, facilitate their committing.

In addition to various developments that appeared in the concept of crime and the way the offense is committed in cyberspace, the field of scientific discovery-related offenses also were experiencing transformation. Therefore, from the beginning of the criminal deal with cybercrime, issues that are concerning criminal procedure, including evidence of the systems and problems surrounding it and obtaining electronic evidence and proving cybercrime have been considered and studied. In principle, for that, any information, in any format, including electronic and non-electronic have the ability to provide the court and the court also invoked, first the identity of the creator should be known, and second, the information will be valid and reliable. The absence or deficiency of any of these conditions will reject the evidence and deprive the probative value of them.

Although the law of e-commerce, adopted on 13/Jan/2005, provisions in relation to the evidence are presented, but in connection with its citation, according to experts, in this field, no provisions have been predicted. Different stages of citation, and the experts, and their comment can be cited only from the tenor of the Criminal procedure Code.

However, in France Procedure Code, in some articles, obtaining the electronic evidence is considered. In a preliminary investigation, judicial police officers can proceed with the seizure of documents and the computer information records data. According to Articles 94 and 97 of the Code of Criminal Procedure, Magistrate can inspect in every place that there are objects containing computer information, which their discovery is useful for truth, and he can use from any person or institution that was expert and have information on this topic. Also, in connection with the decoding of data, the provisions were anticipated in French law by lawmakers (such as Article 1-230), but in Iran, there is no such legal rules and as noted, the general provisions of Regulations 2013 Criminal procedure invoked by the judicial authorities can be invoked for the use of experts in the field.

## 5. Conclusion

Iranian lawmakers have been influenced by jurisprudence, and explicitly, have introduced the expertise as one of the judge's knowledge evidence along with other statistics in Article 211 of this law, provided that typically seem Science. In French law, though in principle, the validity is with spiritual reasons (as in jurisprudence and Iran) but the examples can be cited, which expertise alone can be cited by the judicial authorities in this country (unlike Rights in Iran).

In this country, expertise is as a true and impartial result, in truth and obligations of experts stem from the important principles. "The legitimacy of obtaining evidence and manage it, objectivity and impartiality in the analysis of evidence for someone who wants to help the administration of justice is essential."

The result of this paper is that, expertise in Iran as one of Justice Statistics influenced by the jurisprudence is not considered an independent reason to prove the crime and it is anticipated only in the statistics, to satisfy the conscience of the judge. It cannot alone be ruled documentary, but in French law, they pay more attention to expertise and experts comments.

However, the importance of Iran's expertise in law is not less, according to provisions of the new law and in Iran's rights, among the four reasons, namely the confession, testimony,

qasamah and the judge knowledge, the judge knowledge, is of great importance. After the establishment of the Islamic Republic of Iran, with the adoption of the Penal Code and the Law on Amendment of the Code of Criminal Procedure and subsequent laws, fundamental changes have been created in the system of crime and punishment and handling criminal matters, based on Islamic law and criminal law in Iran. Under the changes, the judge knowledge was anticipated in law, while, before the revolution, in legislation, there was no knowledge of the judge. Penal Code, enacted in 2013 has considered the judge knowledge valid in the general way, to prove all crimes.

However, it is suggested that in the new provisions of legislation, such as France, new evidence will be referred and gave more attention to obtaining reason to fill the gaps of Iranian legislator, in this context.

## 5.1 Recommendations

According to the study, the following recommendations seem to be:

1. Given the progress made, in all areas and new technologies, devoting to theological reasoning and proof value cannot answer many proofs of offenses. Therefore, it is necessary, Iranian legislator considers material evidence along with legal evidence, and consider them effective at proving crime.
2. In Iran, the material evidence, such as expertise is just as judicial jurisdiction and alone, cannot be useful in proving an offense, and it is remembered just as persuasive knowledge of the judge, that look of the legislation should be modified and expertise must be as independent reason in the rules.
3. With regard to criminal law in France, Iranian lawmakers have no technologies that have been used in the law of that country, in order to prove the crime, which is necessary to consider the new detection methods in this regard, in line with many countries.
4. In Iranian law, there is no task in particular, whether the official is obliged to call upon an expert or not, but in French law, correctly, judicial officials are obliged to quote the expert opinion and influence his view in sentencing that is necessary for Iranian legislators to clarify their homework in this regard.
5. The revision of penal and civil codes, in order to improve the probative value of expert opinion
6. Assigning judges to refer technical affairs to experts in texts and in legal bills
7. Assigning judges to provide technical and legal arguments for the rejection of expert opinions (Article 124-44 of the Criminal Procedure Code in the US)

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## CIVIL LIABILITY OF DOCTORS IN MISDIAGNOSIS LED TO THE BIRTH OF DEFORMED CHILDREN

<sup>a</sup>MAHDI NAMDAR HASHKAVAAE, <sup>b</sup>NOURALI HAGHIGHAT

<sup>a</sup>*Master of Private Law of Islamic Azad University of Rasht Branch.*

<sup>b</sup>*Assistant Professor of Islamic Azad University of Bandar Anzali Branch*

*Email: <sup>a</sup>Namdar.1984@yahoo.com,*

*<sup>b</sup>Haghighat\_law@yahoo.com*

Abstract. Based on the single article of the law on abortion, the mother is allowed, in case of children with birth defects, or hardship for the mother if the child's birth, she can perform the therapeutic abortion under specified conditions, by the legislative. Accordingly, misdiagnosis of a doctor in the deformed child born, due to the lack of therapeutic abortion, freedom of patients visiting any other expert, and a lack of legal basis and resources in calculating the damages caused by the deformed child born, will not cause civil liability. However, deliberate misdiagnosis is considered professional misconduct and is punishable.

Keywords: deformed child born - therapeutic abortion – doctor's civil liability- misdiagnosis

### 1. Introduction

The doctor's responsibility means to be accountable, liable for damages and losses that are caused by negligence, misdiagnosis, and lack of adequate skills for the patient. It is mainly the civil responsibility and in a few cases, it is involving civil liability and criminal liability as well. In the case of medical responsibility, there are two views. The first point of view is based on the forcible medical responsibility and another point of view is attached to the contract that the contractual obligation of means and obligation of result derives from the same perspective.

In French law, the physician responsibility has long been considered forcible. In 1833, the French Supreme Court, ruled that the civil liability of physicians is consistent in 2003 and 2004 of the French Civil Code; therefore medical responsibility is forcible (Abast Poor, 2013; 259). By 1936, the Supreme Court expressed a different opinion about medical responsibility, the courts of France, in the case of medical responsibility, exercised regulations governing coercive responsibilities. It means the injured party must prove the fault of the doctor. Before the Supreme Court decision of 1936, some French courts, including the appellate court of Besançon on March 20, 1933 and Lyon Appeal Court on March 19, 1935, were allowed to contract theory. The French Court in 1936, with the approval of the terms, considered the medical responsibility contractual (Bassam muhtasib, 2014; 11).

Socially, the responsibility to know the physicians regarding damage caused by the actions that he has done in the context of his time science, takes the ingenuity and talent away from him and stops the medicine, on the border of conventional treatments and harmless. From the ethical dimension as well, how can give the reward of goodness with evil, and how can ask for damage from a human who has used his efforts and medical knowledge, in the way of treatment? This means is not unlike practical reason of the sponsors' physician, the doctor is kind and a kind person is "the reward of goodness is with goodness". Under the general rule, he is not the guarantor, and then the doctor is not a sponsor. On the other hand, if the liability is subject to proof of medical fault, prejudice and complexity of the study and the lack of total and complete knowledge can be prevented that, this case will reach the desired result.

Therefore, in the assumption of causality, it is likely when the relationship between medical procedures and damage is proved; it will be enough for his responsibility. Article 319 of the old penal code, which has been developed based on Islamic law, based on this theory, says: "When the doctor, however qualified

and professionals, in the treatment of personally carried out or ordered, although with the permission of the patient or guardian, causes loss of life or violation or property damage, he will be responsible."

What is certain, in the legal systems of all countries, first, the qualified cautious permitted doctor is not responsible for the damages to the sick, and secondly, the physician commitment to the patient is the obligation of means, not the outcome. If the physician uses his tools of work that are, the degree of knowledge and skills, experience and commitment to public standards and adherence to standard procedures, properly and carefully, he cannot be blamed. Old Islamic Penal Code considered the physician commitment as a commitment to act thus it knows the doctor responsible for the patient for compensation over his life and body, even if, the cure was done with the consent and permission, and even, all experts in medicine order that the physician was not at fault in his treatment. Endorsed by the trust court experts on the lack of medical fault or negligence acquitted him merely of intentional murder, criminal responsibility and punishment, but his civil responsibility in compensation for material damage to the patient, still remains. Fortunately, the new Penal Code amended the previous regulation and returned to the fault. Acceptance of the theory of fault, in the field of medical responsibility, is based on the idea that in principle, the physician is committed to tools, not a commitment to results. It means the doctor under contract or law commits to treat the patient compliance with the standards of medical and uses his effort and skill, to treat him, however, the certain cure of the patients is not in his possession and his commitment. Therefore, the physician only can be blamed, when his fault is proved. If the physician liability will be a strict liability with no-fault, the doctor does not dare to perform dangerous treatments and surgeries and this prevents the progress of medical science and will be the detriment of patients and society (Abast Poor, 2013; 261).

However, the civil liability of physicians in misdiagnose a deformed child born by mistake, due to the possibility that abortion legislation is placed (under certain circumstances) for the mother, has great legal complexity. Proving or falling of this responsibility of the doctor is an issue that will be examined in this article.

### 2. Commitments of doctor in jurisprudence and Iranian law

Indeed, in the study of medical responsibility, regarding the misdiagnosis led to the birth of deformed children, we have to study the obligations of the physician, the patient-physician relationship and in general, the formation of civil liability, to pay the compensation.

Some say: "doctor-patient relationship, in its current form, is arbitrary. The patient chooses a physician with his liking, or accepts the physician who recommended him in the hospital, and the doctor agrees, by accepting patients and treats him. However, it should be noted that, today, the contractual relationship is established more with legal personality of hospitals and clinics, and doctors, as part of its character or experts, treating patients." (Abast Poor, 2013; 260) the doctor character, will never be nullified, but the physician's personal responsibility should be considered in accordance with the general rules and not the contract with the hospital. Except in special cases, the patient can appeal to anything he wants if the medical errors will be both contractually and enforced. In medical practice, commitment to treatment is the commitment to care, and the implementation of common techniques, and efforts in treatment, and it less happens that, the doctor guarantees patient healing, even confidence that the doctor gives about an effective medical treatment or a success in surgery is based on the doubt and it has a more psychological aspect than legal and

the courts hardly guarantees these promises. The rule is applied in the case that doctors have no contractual relationship with the patient and he is the function of his professional job. For example, doctors who treat the disease in case of an emergency or will be the contracting party and will be asked for cooperation by the hospital, he has not the duty more than care and effort and special actions.

## 2.1 in Jurisprudence

In Jurisprudence, it is known that the physicians support damages, which will be because of the treatment to the patient, though, he had the necessary precautions and the treatment will be to the patient's permission. In view of justification, it is said that: "since the act of doctors will be done deliberately, patients' loss is in decision-degree of murder." They have also argued that despite an employment obligation, resorting to innocence presumption is baseless, because in this case the principle is not current. In addition, the permission is in treatment and not in loss, so the guardian's permission in fall of loss has not been effective, there is no conflict between permission and liability (Najafi, 1398 AH; 43:47).

In return, Ibn Idris did not know the doctor as a guarantor if he is aware and he makes the necessary effort into the treatment (Shahid Sani, 1282 AH, 347). In order to justify the view, with the permission of the patient, the responsibility disappears and what is legally permissible has no liability.

There is less doubtful regarding Abra physician from the patient and his guardian before treatment. Some have said Abra has no effect because the waiver is before fixing it, but popular opinion is firmly opposed to it. The reason of popular opinion, the rest of the news from Abu Abdullah (AS), from Imam Ali (AS), the public and the public need in the influence of these conditions. The Abra has similarities with the permission of harm and like the conditioned elimination of animal and Parliament, it should be valid (Najafi, 1398 AH; 44:47). It should be added that, some scholars have considered the physicians absolute responsibility, limited to his stewardship in waste and do not consider assumptions that, the patient accepts the medical suggestions with confidence to his wisdom and authority in the scope of this guarantee. They cited on the confirmation of their view toward the news that know the treatment permissible with the possibility of health (Najafi, 1398 AH; 49:47).

In comments and criticisms of jurists, it can be summarized that if the doctor is a supervisor at Treatment, without obtaining permission, the great jurists are allowed to liability. Document waste to rule in the case, if the doctor will be in Treatment and take permission from the sick, without have acquitted him, ruling is well known with the necessity of guaranteeing before scholars as the loss rule document. Unlike Alameh Hilli that had no guarantee, document should be the principle of non-liability. Groups of jurists objected him that this principle is disposal to rule waste. To illustrate, attention to this question is necessary that if in case of loss, the rule of goodness will be obeyed or not? In most legal texts, it can be seen that goodness rule, allocates the rule and "On the hand that take even Todd Yeh ", but the waste rule has defined situations and the decision to guarantee the spendthrift, however he will be good or not (Abast Poor, 2013; 260).

However, it seems, the waste rule has no such application, but the best rule has considered the real rule in waste rule. Therefore, first, the evidence of waste rule - Anyone who damages other people's property is a guarantor - does not apply, due to the fact that, this Cobra's overall is not narrative context, but, it is, inevitably, because of the lip, which is not defined in that way. Secondly, "What the benefactors of the matter" is universal, free allocation. The language is the languages of verse that is not the allocation vector and particularly it means practical reason of Muda (Abast Poor, 2013; 262).

Therefore, Mohsen, even if it is destructive, but it is non-destructive due to its goodness. Holy legislator, in the area of law and legislation, considers improver non-destructive, and inevitably "What the benefactors of the matter" on the base of real government waste, which is a waste of the allocation rule, namely: "View improved non-underwriter", so in both cases, there is no liability to the doctor, because he is Mohsen. Because in each case, as improver is true for a doctor, in accordance with the principle of beneficence, there is no liability, including criminal, civil fixed on him. Sheikh Abdul Rahman Algeria, said to the four Sunni schools: when a doctor will be skilled and qualified and habitually, he has made no error in his operation, however, in his treatment, incidentally, he has killed or maimed, so no liability will be for him.

## 2.2 The civil liability of a doctor, in the IPC, with an emphasis on Islamic Penal Code 2013 and comparison with the Jurisprudence

Doctors' civil liability is one of the important legal and civil liability issues that have been discussed in different countries, and important ideas have been issued about it. In our country, before the adoption of the law diya, in 1982, a civil liability of doctors was subjected to the general rules of civil liability and the terms of the responsibility, primarily, the fault was appointed in 1339 civil liability law. In addition, in terms of the responsibility, primarily, the fault, which was established in 1960 in civil liability law, was applicable in this case. However, in Law of blood money in 1982, followed by in the Penal Code in 1991, some articles were devoted to this issue, which are not compatible with the fault. Moreover, the articles do not have enough coordination based on responsibility, and in their interpretation, also statistically comments can be seen. Fortunately, the new Penal Code in 2013, it amended the previous regulation and returned to the fault.

### 2.2.1 The civil liability of doctors in the Penal Code and Jurisprudence

Article 319 of the Islamic Penal Law 1991, on civil liability and legal interpretation, the liability of the doctor, it was decreed: "If a physician, though, qualified and professionals, in treatments that he does, or orders, though, will be with the permission of sick, or his guardian, causes loss of life or injury or property damage, he is responsible. "

It is noteworthy that, it has a vast territory because it includes both waste and causality: the phrase, "I do it personally" is the observer of waste and the word, "ordered" is the observer of causality. In addition, the article covers both losses of lives and limbs and financial losses. Furthermore, in this article, there is no word of blame and apparent, the legislator has accepted the strict liability or no fault. Whether we consider the theory of risk or the theory of right guarantee, with inspiration from Western theories, as its base, or by the use of words and interpretations of Islamic jurists, we consider the theory of loss negates as its basis. However, Article 319 IPC in 1991, is based on Shi'a jurists, that consider the physician, responsible, in any case, whether he has faults in the science and practice, or qualified, or permitted by the patient or guardian.

Article 321 of the Penal Code in 1991, which referred to a veterinarian, is as the Article 319, apparently, it accepts a veterinarian strict liability and decrease that when the veterinarian and the vet, however, will be an expert in animal care, however, with the permission of the owner, causes damage, he will be responsible. "This article, in terms of the responsibility is in accordance with Article 319 and the like, it has religious roots because, it has been described the vet in terms of liability to the doctor.

According to what was said, the responsibility of a doctor and a vet in liability in the IPC 1991 is a strict responsibility and it is not based on fault. In other words, for medical and veterinary obligation for compensation, it is enough to prove the harm

suffered and the causal relationship between the loss and the read operation, while the responsibility of the circumcision under Article 320 is apparently based on Shia scholars. It considers fault, just as "exceeding the limit" and in case of non-aggression guarantee as much to the lack of guarantee for their fatwa.

### 2.2.2 Basis for civil liability of doctors in the IPC 2013

The new Islamic Penal Code rejected strict liability or liability without fault of the doctor, according to some scholars and critics and it is based on returned to the fault. In accordance with Article 495 Islamic Penal Code 2013 "Whenever a physician in his treatment causes loss or injury, he is the Guarantor of blood money unless his action will be in accordance with the provisions of the Medical and Technical Standards. Alternatively, before treatment, the acquittal is made and he committed no fault... and if getting exemptions from sick is not valid due to his immature or insane, or innocence of him may not possible because of the anesthesia and the like, the innocence will be gotten from a sickness."

Note 1: In the absence of negligence or fault of the doctor in the science and practice for him there is no guarantee though is not getting innocence.

Note 2: The patient's parents are certain like the Father. In case of absence or unavailability of the special parents, head of the judiciary by seeking permission from the respective positions of leadership and authority granted to prosecutors' innocence apply to the doctor.

We infer from this article, which doctors are primarily responsible for the losses suffered by the patient, unless the lack of his fault will be proven, or the presumption of innocence is received. In this case, also, when the doctor is exempt from responsibility, he is depreciation. In other words, the context of the above article is inferred as the assumption of guilt or as the presumption of fault, which means that, for responsibility, it is not necessary to prove fault, but doctors could prove his guilt, if he proves that, he has fully respected medical regulations and technical standards and committed no recklessness. When the doctor obtained innocence from the patient or guardian, and in other words, he asked the condition of his irresponsibility, the burden of proof of guilt will be the loser's responsibility. Therefore, it is not exempt the condition of innocence from the physician liability in case of fault, and it only shifts the burden of proof. It means that, if the condition of innocence has not taken from the guarantee, the burden of proof of fault will be on the shoulders of doctors and if the certificate of innocence has been taken, the burden of proof of fault will be on the shoulders of the injured party. The use of the word fault, in the matter of law, is that the responsibility of the physician is based on fault, but not proven faulty, but the assumed fault, that it can be proven otherwise. Obviously, in strict liability or absolute, proof of guilt will not be effective. Article 495 of the new law also confirms the acceptance of fault in the law (Safai, 2013, 145).

### 3. Analysis of therapeutic abortion law

Based on a single article, therapeutic abortion law is approved on 15 June 2005: therapeutic abortion is authorized with a definitive diagnosis confirmed by three physicians and verification of Legal Medicine based on the fetus's illness. It is due to the disability or being deformed, causes constriction for the mother or the diseases of the mother that is with the mother's life threatened, before insufflation of spirit (four months). In addition, no punishment and responsibility will be considered for the doctor.

It comes from the uttered of the Article that establishing the right for abortion is with terms of reference material, for parents, with the mother's consent. We know that, to make this right, it depends on the diagnosis and prenatal diagnosis processes as

well. Diagnoses that should insist on it and it should be done four months before the fetus.

However, the question comes to mind that, in the case of medical malpractice, in the diagnosis or declare it and the birth defects, whether he will be in charge for compensation or not? If the answer is yes, what is the legal basis? How will the amount of damages be determined?

In the single article of the law on therapeutic abortion, it states: "abortion is allowed with a definitive diagnosis confirmed by three doctors and forensic experts, based on fetal diseases, which due to disability or being deformed. It causes constriction of mother or mother's illness, which, coupled with the mother's life threatened, and it can be done before insufflation of spirit (four months), with the consent of the woman. No penalties and responsibility will be realized for the doctor. Violators of the provisions of this Act shall be sentenced to the punishment prescribed in the Penal Code."

As of the uttered matter and what was expressed in the right and split it, it seems that we cannot allow therapeutic abortion as a right to be considered because:

1. Due to the illegality of abortion in Iranian law and indicating the phrase: "... punishment and responsibility will not be held to liable doctor." It seems, legislator wishes to address the cases of removal reasons of criminal liability, because abortion toys criminal responsibility and the article has excluded for therapeutic abortion, if it is subjected to confirmation by three doctors, proving deformed or fetal disability and creating hardship for the mother. It has cited all the above-mentioned condition as the doctor's defense to criminal liability.

It should be noted that, there is a distinction among the causes of criminal responsibility and the "right". For example, self-defense is one of the reasons for resolving criminal responsibility, and it is proving causes the removal of punishment, but with the description mentioned above, could we consider the right of self-defense right? In the author's view, we cannot consider a right of self-defense right, because, with all the definitions that were given; we cannot find a definition for it. Even taking into account the legitimate defense, as a right of suspension or probation, is not right, because:

First, there is a difference between right and the right owner, while, in self-defense, such a distinction is not possible and as long as, the self-defense is not approved by the court of competent jurisdiction, it does not exist. In other words, no proof of self-defense means of not realization, and if the self-defense cannot be proved, it will be denied, while, on the right belongs the right and this is the entitlement, or rightful of the person who needs to prove it. The same applies in the case of therapeutic abortion. In therapeutic abortion, if three competent doctors do not meet the conditions, abortion lacks relevance and it cannot be claimed that the owner belongs constant right. Thus, even in the event of medical errors in diagnosis, therapeutic abortion does not form because of one of its pillars' abortion.

Two other causes of criminal liability are the exceptional entry on other waiver, not creating new rights. Accordingly, obstruction of justice is meaningless in removal reasons of criminal liability. For example, removal reasons of criminal responsibility for crimes, is exceptional, the right to life and if someone prevented that the victim self-defense and prevented crime, in each case, as foreman or deputy, in crime, traceable and deprivation of the right to life will be the case, not deny the right of self-defense. Therapeutic abortion, too, is exceptional that is the right to life of the fetus, and we cannot define it as a new right.

2. The use of indicating "permitted", in the text of the article, ultimately, can indicate the permissibility and not fixing the right, because, being proved right is not the same as its license, and in the fixing of the right, determining the implementation

guarantees is necessary, while license on it, do not need to determine the sanctions. That is why the legislator, in this matter, has not determined the enforcement, to prevent abortion. Accordingly, if the doctor or medical center states the patient that, despite the circumstances and legal physician, it is not willing to do therapeutic abortion, the patient should go to another doctor at the center, although patients get into trouble for finding another place, he cannot file a lawsuit against a doctor or medical center.

To clarify this issue, we can remind an example of other authorized affairs. Smoking is allowed from the perspective of law and positive law. Accordingly, no person can be prosecuted due to smoking, or carried out civil liability on him due to smoking, but it does not mean the right of person for smoking. Thus, each vendor who can sell tobacco products, but not willing to sell it, is not responsible based on the common law and the law, or any person or institution can prohibit smoking in private and public space - even if it is not covered, such as university campuses or public courtyard of shrines and holy places, where smoking is prohibited.

In this case, since, avoiding medical examination or avoiding therapeutic abortion, despite the permission, is not causing responsibility, misdiagnosis, provided that no intentional element was included, and it is defined in the medical error, cannot lead to criminal liability. We will talk about the deliberate misdiagnosis on the next topic.

Finally, we can say, therapeutic abortion is considered a legal license, that due to the elimination of criminal responsibility, it causes the punishment fall of legal abortion, and then it cannot be considered as an independent right for the mother or the guardian of the fetus.

#### 4. Results

##### 4.1 The possibility to assign the responsibility for deformed child born compensation, to medical errors

In the realization of criminal responsibility, three elements of legal, material and psychological are essential. Thus, one can easily understand misdiagnosis of a doctor and the birth of deformed child does not cause criminal responsibility, due to lack of legal element, even be intentional.

Regarding civil liability, as mentioned, therapeutic abortion cannot be considered a right that the waiving would fall the penalty, but, apart from this, is it possible - even on the assumption of the right legal abortion - to consider a causal relationship between the births of a deformed child and misdiagnosis of a doctor? If this is so, is there a jurisprudence and legal basis to determine the extent of damage or the money?

In this article, we review the possibility of assigning responsibility for deformed child born compensation, to medical errors, and discuss the above.

##### 4.2 The causal relationship between a child born with birth defects and medical diagnostics

Although, it is possible that the misdiagnose or inappropriate drug prescribing cause damage to the fetus or cause defects in him, however, this is outside the scope of this research and this study examines the hypothesis that a child has a defect due to other reasons and misdiagnose only caused foreclose the possibility of legal abortion. In this case, we can attribute "born" of a deformed baby to the doctors misdiagnose, but this only refers to "birth" and not creating defects.

Loss is a secular sense, meaning that, in determining instances of loss, we should accept the custom judgement and in this regard, we should not follow the examples of losses that in law or Sharia, it is not mentioned to be allegorical.

On religious subjects also, the great jurists have known the custom judgment as a criteria on the occasion of the debate about the harmed rule in recognizing the concept of loss and determining its exemplified and they have not expressed a legal definition of loss (Ansari, 1995, 2: 426). Because, as the owner of the categories referred (Almraghy, 1417 AH; 2: 311), the loss is the categories of law and in matters of law, custom judgment is the criterion. However, it is seen that jurists had thought in matters of law as well, and they have not considered some of the instances in loss categories that the norm today see them as losses. Including, about spiritual harm and non-profit, for example, Imam Khomeini (RA), according to the custom judgment, did not consider desecration or insult to another as losses (Khomeini, 2006 AH; 30-33). However, some other scholars considered non-profit and spiritual harm as the loss (Almraghy, 1417; 2: 309). This is because the custom can detect loss better and give the right to suffer by the victim, and in manifestation of harm, we should be based on the norm.

Now, the question arises whether, there is a specific definition of loss and damage, which should be a standard practice in matters of law, or by the legislator? Or it is not that and the matter of law leaves the concept and examples of loss to custom and experts, at any time and place. Obviously, if each of the two assumptions will be applicable, we encounter the effects of certain results. If we consider a certain standardized criteria for the loss or damage, we should only consider the compensation for that the legislator knows it as the damage. In this case, it seems that we have the narrow concept of losses, ahead. However, if the criterion of the loss is common, we should consider what the custom knows it as a loss. In this case, it seems that the loss or damage has a more general sense and more several examples, because, custom and customary judgment is a relative thing and it is different according to times and locations. Although, under Article 728 Procedure Act, former civil, it was stated: "the loss may be due to the financial loss or by the death of benefit that has been achieved from the commitment". We cannot infer from this article that the loss is a verdict concept and matter, and it is merely the loss of property and loss of profit, and nothing else. Because the legislature, in Article 728, first of all, only has introduced two examples of financial losses, and secondly, he has spoken in the common language, and the legislature has not mentioned the unlimited sense of loss, but the rule is allegory. The proof of the matter is that in other laws, other instances, if loss is taken into consideration. Including in the Civil Procedure Act 1939, compensation of delayed payment is recognized in 719 to 726 articles and it had expressed its Rules. On the other hand, in Article 171 of the constitution, the spiritual and material loss, both were accepted and were considered compensable and in civil liability laws enacted in 1960, in Articles 1, 9 and 10, spiritual and material loss has been accepted.

Accordingly, although the losses look compensable, but it must be said, there are drawbacks in the ability to assign it to the doctor. These problems include:

1. The single article about abortion has emphasized the diagnosis of three specialists, without tying the description of a specialist in a certain constraint - such as a coroner or a reliable doctor. In this case, two presumptions arise. The first assumption is that the mother - or father- know the malformed fetus in some way- and visit specialists to confirm this. In this case, they will have the freedom to select and refer to any of the physicians, and in case of detection of birth defects, by each of them; there are other possible medical care. Also, not only misdiagnosis of three doctors at the same time seems far-fetched, that in case of one or two doctors' misdiagnosis, determining their contribution to the damage arising from the birth of deformed children, faced with uncertainty and the attribution of harm to them qualified difficulty, due to the possibility of the patient, in reference to other doctors. In this case, no recourse to other doctors is a stronger reason that influences the causal relationship of the doctor's misdiagnosis. Another assumption is that the mother - or father does not know

the deformed fetus, and physicians will not be able to detect it (or the diagnosis is wrong). In this case, though the causal relationship between wrong detection and the birth of deformed children will be formed more complete than the first assumption, but still, the right of a patient to refer to other doctors is reserved. Moreover, in this case, misdiagnosis was not observed and only, lack of diagnosis the defect is important, and if the misdiagnosis happens, despite respecting therapeutic diagnosis norms and necessary tests, there will be no malpractice or negligence of the doctor that he could be blamed.

2. Recognition of medical errors, if he acted within his jurisdiction and on the basis of common medical practices and clear principles of diagnosis, he has never been considered responsible by the legislator, that if this happens, the medical community safety encountered a serious hazard.

#### 4.3 Lack of legal and jurisprudence resources in the calculation of damages

If we consider this assumption, despite all the discussion we had, that the doctor is responsible for the loss due to the birth of the deformed child, is there a base or source of jurisprudence and legal basis for compensation?

In terms of Jurisprudence as well as matters of law in Iran, there is no difference between healthy people blood money and people with a disability or disorder. On the other hand, proving of blood money entitlement, in Jurisprudence and Iranian Law, subjects to the conditions that, none of them apply in the discussion. Therefore, the possibility of determining damages, based on the blood money table, under titles such as the value of healthy individuals and malformed blood money! Healthy person and a person with a disability blood money! Or the blood money of members with malfunctions, or in general, does not make sense - both First matters or in this topic, the third matter does not make sense.

On the other hand, the possibility to determine damages, based on the length of treatment determined by the legal medical examiner, in this case, will not apply, because, basically, the concept of duration of treatment relates to injuries and they are the damages that are treatable and not about disability or birth defects, that no treatment can be imagined for them.

However, even if, contrary to the author's view, we consider the abortion right, it will be non-financial right, so that, in that case, the possibility to determine money damages in this right will have no image of what is raised in methods of financial compensation.

Finally, we can say, regardless of whether or not abortion rights, payment of damages and losses caused by the birth of deformed children, in jurisprudence and Iranian law has no source, and a way to calculate compensation.

#### 4.4 Intentional mistake of the doctor in the diagnosis, leading to the birth of deformed children

There is an assumption in which the possibility of Therapeutic abortion will be lost with intentional misdiagnosis of a doctor. According to what was mentioned, Therapeutic abortion is not a right, and on the other hand, there is no basis and the source, to compensate for loss or damage resulting from it, therefore, in this case also, there is no possibility to carry civil liability for a doctor. However, this does not mean absolute impunity of a doctor, if intentionally misdiagnosed.

The doctor is obliged to use all possible facilities and his ability to make the patient better and does his medical duties in the diagnosis and treatment of a disease. Misdiagnosis causes responsibility and violation of the mentioned issue is considered

a professional violation, if it is deliberate and regardless of the subject.

In other words, misdiagnosis, which takes place on purpose will deprive an independent right of a patient, meaning the right to have access to diagnosis and treatment, and in this case, the doctor will be traceable from the Medical Council Disciplinary Board of the country, and in case of intentional misdiagnosis, he can be fined, suspended of employment licenses and even, in some cases, revoke of license to engage in practice.

It should be noted that fine, whatever the amount is, should be paid in the right of the government and it is a form of punishment, thus, it should not be mistaken with compensating for the losses and damages.

#### 5. Conclusion and Recommendations

According to what was studied and analyzed in this article from the single article of the law on Therapeutic abortion, the doctor cannot be responsible for compensation, in the case of wrong diagnosis, which leads to the birth of deformed children. However, this misdiagnosis, whether intentional or not intentional or misdiagnosis affiliation to health care non-compliance can create professional or in some cases, legal liability for doctors, which this is different from civil liability of a doctor, in compensation, because:

Firstly: Therapeutic abortion is one of the removal reasons of criminal liability - abortion crime-and not independent right

Secondly, the medical profession demands and providing health care system security is that, the doctor did not be the sponsor, except in cases of negligence and fault, as long as following the rules and the existing system.

Thirdly, there is no base and a source of jurisprudence and Iranian law for compensation damages caused by the birth of deformed children, because Islamic law does not consider a difference between respecting healthy individuals and individuals with disabilities, and the blood money for both has been specified the same.

Fourthly, even if, contrary to the author's view, we consider therapeutic abortion as a right, the right will be non-financial and there is no mechanism for calculating its value.

Fifth: the deliberate misdiagnosis of a doctor is one of the instances for professional misconduct and it is traceable, from the union, and it can not be considered wrong with a doctor's civil liability in compensation the loss due to the birth of deformed children.

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## PERSIAN POETS' ROLE IN THE PROMOTION OF ETHICS AND ISLAMIC MYSTICISM IN THE INDIA (CASE STUDY: DELHI, CENTURIES 7-10 AH)

<sup>a</sup>KHADIJA ALEMI, <sup>b</sup>HOSSEIN NAZARI

<sup>a</sup> Assistant Professor at the University of Tehran, Faculty of Literature and Humanities, Dep. Of History, Tehran, Islamic Republic of Iran.

<sup>b</sup> MA at the University of Tehran, Faculty of Literature and Humanities, Dep. Of History, Tehran, Islamic Republic of Iran.

Email: <sup>a</sup>alemi1900@ut.ac.ir, <sup>b</sup>hosseinnazari@gmail.com

**Abstract.** Persian language is widely considered as one of the factors of keeping and transferring a part of the culture of Iran. By the formation of monarchy of Delhi sultanate. Persian literature and language had a special place. So, Persian poetry and literature is one of the most important factors that helped them in this issue. This research is going to investigate how the Persian poets' role has been in the promotion of ethics and Islamic mysticism in Delhi. In response to this question, this claim is raised: Persian poets through the provision of human concepts, piety-oriented, justice and fight against oppression, in the promotion of ethics and Islamic mysticism in the Indian sub-continent had an important contribution.

**Keywords:** Persian poets, Ethics and Islamic mysticism, India, the Sultans of Delhi.

### 1. Introduction

At the beginning of the seventh century AH, the Delhi sultans was formed by Turkish slaves in the north of the Indian subcontinent. By the formation of this government as the first Muslim rule and its continuation until the year 962 AH, in the Indian subcontinent, Islam was spreading dramatically. Sultans of Delhi in the beginning, to manage the affairs were facing the shortage of Muslim skilled labor. So Muslim immigrants were welcomed in the Indian sub-continent and placed them at great positions of the rule.

Immigration of poets and scholars of Persian language in India and the arrival of some of them to the court and the government promoted the Persian language and its expansion in the period of the Sultans of Delhi. The Persian language and literature in this period considered as a cultural instrument in the promotion of Islamic culture, especially ethics and mysticism. Promote Iranian poets in the court of Sultans and princes, and sometimes Persian poetry by Sultans, princes and courtiers shows the status of Persian language in the reign of Delhi. So it is not possible to Persian poetry and literature be considered as one of the dominant features in the period. In this study, it is tried to be investigated ethic and Islamic mysticism function in Persian literature in the Indian subcontinent in the centuries 7-10 AH that is at the same time with the rule of the Sultans of Delhi. Although in the field of Sufism, mysticism and Persian literature in the Indian sub-continent, independent research has been done, however, research on the role of Persian language and literature in the promotion of ethics and mystical ideas and modify the views and attitudes of the people and the rulers of Islam, no independent study has not been done. Hence in this study, the role of Persian language poets and writers in promoting poetry and mystical beliefs has been investigated in the Indian subcontinent.

### 2. Approach of Sultans of Delhi to poetry and Persian language

In the early beginning of the reign of Delhi, court of Naser Al-Din Ghabache the ruler of Sindh (the famous supporter of the theologians and grace) was one of the centers of literary and art. After the defeat of Ghabache in during the campaign of Ilutmish to Acheh and his death, literary and scientific center of the subcontinent was transmitted from Sindh to Delhi (Naqavi, 1962). Learned and scholars such as Awfi joined Shamsuddin Ilutmish and under his patronage, continued their scientific work. Awfi due to skill in rhetoric was considered by Sultans and in their court had special status. He ended Javame Al-Hekayat by the order of Nizam al-Mulk Ghavam al-Din

Muhammad Joneidi minister of Ilutmish. By the beginning of the Mongol invasions to Iran, the number of Iranians emigrated in Delhi increased. The history of Fereshte has only cited the number of princes 15 people who migrated to India during Balaban (Fereshte, 1999: 1, 267). It is apart from twenty-five thousand political and scientific elite that following Mongol attacks to India escaped and they were present in Naser Al-Din Mamluki in his government (Fereshte, 1999: 1, 262). At the same time, Multan the center of ruling Muhammad Khan (Son of Sultan Balaban) was also a center for poets and writers. Poem understanding of some commanders like Mohammad Khan led the court poets more than ever be considered and area of their prosperity to be grown since they be able to be equal with elders of literature in Iran. Shahnameh, Khaghani Divan, Anvari, Khamse Nezami and Poetry of Amir Khosro Dehlavi was read in his royal circle and his poem understanding from lyrical poems of Iranian poets was such that Lord of the knowledge was admitted his understanding poem (Fereshte, 1999: 1, Barani, 1862). The importance and interest in Iranian culture and civilization in this period caused to Sa'di Shirazi was invited by Mohammad Khan to the Indian Sub-continent (Barani, 1862).

Attention of Mamluki sultans (602-696 AH) especially during Shamsuddin Ilutmish to poetry and poem and payments that Barani in his book was always regretted for that periods (Barani, 1862: 83) and in the same book, Amir Khosro Dehlavi cited it unrepeatabe periods caused the spread of migration of Iranian scholar and scientist to the Indian sub-continent. Unprecedented attention of Balaban (Delhi Sultan) to Iranian culture and rally of companions of Seif and pen and Master of Arts in court of Balaban (Fereshte, 1999), causing widespread of Iranian literature and art in this period. So this era in terms of promoting Iranian culture was unique in India and the Persian language and Iranian culture was flourished more. Although these poems showed a part of the ancient Iranian culture but it should not be overlooked of Islamic culture in the works and ethics and Islamic mysticism. During khalaji period (696-720AH), importance also continued to poetry. Ala Eddin khalaji at the beginning of his rule seemed not interested in poetry (Narges Jahan, 1990); but after a while he supported poets that perhaps his goal has been magnificent of this period and remain his good name in history.

Fakhr al-Din Mobarkshah Qawwas Ghaznavi from the literary elders of court of Alaei and including poets who received poetic stipend, he had a special place due to writing Qawwas dictionary because this dictionary is the oldest Persian dictionary that is written in the period of Alaei. Qawwas dictionary was soon imitated by many literary greats. Dastur Al-Afazel written by Hajib kheirat Dehlavi, Bahr Al-Fazael by Mohammad Bin Rostam and Sharaf Name by Ibrahim Bin Ghavam Farughi is including cultures that have taken advantage of the Qawwas dictionary. This book was written at the request of friends and to explain the words of Shahnameh (Narges Jahan, 1990).

During the reign of Tughluqs (720-815AH) poetry was still considered by the court. Tughluq rulers to strengthen their rule, has attracted many immigrants in government and ordered to respect them, rather than a strange word use the term of Aziz to call them (Ibn Battute, 1997). Increase the number of Iranian population in this period was caused to title immigrants as "Khorasani" (Ibn Battute, 2). In this period, support from poetry was flourished to the point where Ibn Battuta has cited the payments of Mohammed bin Tughluq the most granted of Sultans to poets (Ibn Battute, 2). Government elders who had come from Iran to India, with taking the government positions in addition to supporting the poets and writers supported copyright of books. They were attempting to expand sciences that were prevalent in Iran by the help of Persian teachers in the Islamic territory of Indian subcontinent (Mirkhord, 1978). Support culture and Persian literature in the period of Firuzshah Tughluq also continued. This support is not limited only to financial

support of poets. His activity in the field of literature and poetry (Fakhri heravi, 1869), including maintaining the poems of Iranian poets as Sa'di (Afif, 2006).

Seyed Hassan Bin Ala Eddin Sajzy which had the nickname of Ziyaedin and Najmuddin (Hashemi Sindhilavi, 1968) is commended in the history of Firuzshah by Ziya Barani. He says: I have not seen someone in elegance and endurance of intellect and refinement of morality and the need for contentment and abstraction and individuation and funny as Khaje Hasan. People of Indian sub-continent called him Sa'di, the Indian sub-continent due to follow Sa'di Shirazi style. This trait is because as Jami has said in Baharestan, his poetry is simple and impossible, which is the features of poem of Sa'di Shirazi. While Samarghandi wrongly considers his simple and impossible poems arose from his imitation of Amir Khosro (Samarghandi, 2003). His lyrics mystical was ordered in such rank that was read in the event of Sufi along with the lyrics of Sa'di (Mirkhord, 1978). He has pointed out several times that I wish to instead of all the books that I had written, Favayed Al-Favad was his book (speeches of Sheikh Nizamuddin Oliya) (Mirkhord, 1978) He has passed a five-year period, with Amir Khosro Dehlavi in Multan near Muhammad bin Balaban (Barani, 1862) and has had the responsibility of inkstand office. His ethical and poetic features were so that elders liked companionship with him (Hassan Dehlavi, 2006: 19). Khwaje Hasan in late life (Samarghandi, 2003: 248) in Delhi was fascinated by Sheikh Nizamuddin Oliya and joined the ranks of the disciples of Sheikh and his mystical poetry has soared since by the order of Sheikh was called at the behest of Khanghah (Samarghandi, 2003). In the reign of Sultan Mohammed Ben Tughluq and in the city of Diyogir in 638-637 AH, he was died. He Court consists of nine thousand poems in the form of Ghaside, sonnet, quatrains and Masnavi that much of it is covered by Islamic and ethical issues. His most important work that remains are the book of Sheikh Nizamuddin Auliya that is called Favayid Al-Favad (Hassan Dehlavi, 2003), the book that has always been the envy of Amir Khosro Dehlavi (Sindhilavi, 1968).

Other scholars in the court have been Sultan Muhammad ibn Taghlaq and other Indian Sultans Badr Addin Chachi (Hedayat, 2003: 1, 602). His poems have been very popular among the people of India. According to the author Tazkere Riyaz Al-Shoara, it can be understood that her residence in the Indian sub-continent has not been until the end of his life (Vale Dagestani, 2005). His ability in Laghz (Lyrics of mystery) was so high that the Mulana Seifuddin Asfarangy emulated him (Samarghandi, 2003). Some consider Badr Addin Chachi's enigmatic lyrics as the changing point in creating the Indian special style (Aziz Ahmad, 1980).

Amir Khosro Dehlavi (651-725 AH) is including Turkestan poets (Razi, 1, 358). His father went to Delhi and in the reign of Sultan Mohammed Ben Tughluq achieved government officials. After his death, his son, Amir Khosro could take the place of his father (Moddresi Tabrizi, 1990). He is the poets of Sultans of Delhi that could accompany seven sultans of the period (Barani, 1862). His position in poetry was such that he was termed the Indian parrot and Sa'di expresses the cause of non-coming to court of Mohammad Bin Balaban in addition to physical disability (Barani, 1862), exist of poets as Amir Khosro and Amir Hassan Sajzy. Several his collections of poetry included: Khamse includes eighteen thousand poems, Quran Sa'dein in four thousand poems, Noh Sepehr in four thousand poems and Tughluq Name in three thousand poems. Most his books reflects Islamic ethics and mysticism. After the death of Firuzshah Tughluq due to political chaos and civil wars and attacks of Teimur Gurakani, attention to literature and poetry (one of the most important factors in the spread of Islamic culture) fell, as some consider Persian poetry decline in India related to the period (Salimi, 1993).

During the reign of Ludis (855-932 AH) though poetry was not so important, but Persian language passed path of perfection and growth in the Indian subcontinent. Formality of Persian language

by the government that had political and economic power in the Indian subcontinent attracted people of Indian Territory to Persian language. In the period of Sultan Sekandar Ludi, including the Persian-speaking Afghans, the importance of Persian language was prominent; Sultans of Dehli benefited the Persian language in other way for being familiar with Islamic culture. As Persian Language and Literature did a part of his duty on the transfer of Islamic culture to the land of the Indian sub-continent during the rule of the Sultans of Delhi, through the translation (Salimi, 1993).

### 3. Components of ethics and Islamic mysticism in the poems of Persian poets

#### 3.1 Mystical thought and Islamic behavior

Persian poetry as a part of Iranian culture over time reflects Islamic ethics and human correct behavior. One of the main tasks of literature (both prose and order) is that it should be the indicative of ethics and behavior. Court poets in their odes that the most important structure of it was panegyric; to enhance public behavior and properties expressed ethical issues. In the literature of Dehli Sultans, there are many poems from Iranian poets and Persian language that express the ideas of moral and Islamic mysticism, a part of the lyrics that included odes, a series of meditations and thoughts expressed in a tone of warning which they can be called poetic advices (De Bruijn, 1999). Some of the ideas can be found in parts of Persian odes of this period that is in the principles of the Islamic community; the unity of God and praise of the Prophet of Islam and of Muslim leaders and the so-called "virtues" is called (De Bruijn, 1999).

Poetry of poets as Khaghani that in their poems have had ascetic writings as withdrawing from the world, condemning it and preparing self for life of other world cause the development of the mystical and ascetic ideas among the people, Kings and courtiers. Sana'iy in addition to his Masnavi that has been teaching and reflects Islamic morality (De Bruijn, 1999) is considered as the oldest poets of mystic sonnets (De Bruijn, 1999: 80). His poems among rulers such as Muhammad ibn Balaban was popular, and read in his court, Love poems of greats such as Iraghi, Amir Hassan Dehlavi and Amir Khosro Dehlavi that each of them in a way depended on the doctrine of Sufism of the Indian sub-continent, and his poems were read in the halls of Sema, can be considered as the most important source of their inspiration have been mysticism. Poems of Amir Khosro in five sets of Tuhfa Al-Seghar, Vasat Al-Hayat, Ghare Al Kamal, Baghiy Al-Naghiya and Nahaya Al Kamal have been collected. (De Bruijn, 1999).

Sa'di and his poems have been very popular in the Indian subcontinent. Lyrics Sa'di in Golestan due to raise issues of Islamic behavior, such as humanism, peace, family issues, education and training is very important. His Bustan was also somewhat influenced by Sufi poetry and its first chapter is considered in the ruling Seir Al-Muluk that expresses the ethics of governance. The moral outstanding of this book forced elders of Dehli to plan memorizing Bustan for their children alongside the Quran (Mohaddes Dehlavi, 2004). The two valuable books was considered at the view of government and the Grand Royal Delhi and could affect in guiding the thinking and encourage people, elders and rulers in Islamic and human behavior. Placing Iranian elite in the head of state and scientific system of this period not only caused the promotion of Persian language words and terms, but allocating the language to scholars and literature caused to its knowing for the court considers a positive feature. The importance of this point was until the Sultans of Delhi learned poems of poets as Sa'di's by heart (Afifi, 2006) or self-composed poetry in Persian language (Narges Jahan, 1990) and said Persian literary sentences (Ibn Battuta, 1997).

On the other hand, the role that Sufi had by utilizing Persian literature in promoting the values, ethics and Islamic mysticism in the Indian subcontinent has been great. Cheshti Sufi and Suhrawardiye as a part of Muslim community in India that gave a

new special thought to the community of India and given the close relationship that Sufis had with the people and the rulers, could affect their audience. This group of society of Indian subcontinent to convey their intentions used Persian Literature and language. Religious and mystical books written in the Persian language was not only an important factor in the development of Persian language (Naqavi, 1962), but it led to the promotion of ethics and Islamic behavior among people. The number of these works is to the extent that some have cited the number of Persian texts in the Indian subcontinent more than its number in Iran (Schimmel, 1994). Sufi mystics and disciples during this period acted to write Sheikhs ideas in the Persian language, as religious and theological books about Islam, Islamic morals and manners was written in Farsi (Schimmel, 1994).

Taking advantage of the love poems was one of the parts of mysticism and Sufi in the Indian sub-continent that was normally read in their Sema rites. The presence of Sufi elders like Khwaje Nizamuddin Auliya in Delhi at sultans of Delhi period had been caused to poetry (from the Masnavi to Ghazal) is not deprived in the course from mystical themes. The position of poetry of mystic in the propagation of Islam was to where that Farid Al-Din Ganj Shekar started propagation of Islam in the first place by Persian language and then he began to compose poems by the Persian language. Although due to more effectiveness on the people of the region, he paid attention to the moral and mystical poems in the local language of Penjabi and in this way, it has been pioneer among elders of Persian Sufi; But many of the words and the thought and culture of the poems of poems have taken effect of Persian poem (Lahuri, 1971). Attention and importance of sheikhs to poets such as Nezami that Khamse was popular near Nizamuddin (Mirkhord, 1978) caused in addition to publicity of Persian literature and poetry and the introduction of Nezami and Sa'di in the Indian sub-continent, morals, manners, and Islamic mystic spread. Read the poems and sometimes poems in the style of Persian mystical poetry by the Sufi elders (Hosseini Ghoreishi, 1992) showed interest of elders in these poems. This forced their disciples to get attention and approval of them acts to compose poems with style and their content. Amir Khosro was a poet who worked at the court and also was associated with Sufi elders was adorned his poems to properties of Iranian-Islamic culture. In Seyar Al Auliya is cited when Amir Khosro Dehlavi listed his first poems for Nizamuddin Oliya, Sultan al-Mashayekh India asked him to compose by poetry style of Esfahan in which symbols of hair, wine and spot was used (Hoseini Ghoreishi, 1992). Although Persian poetry of Amir Khosro has moral and human implications but with mystics directs such as Nizamuddin Auliya went so far that his poetry was called in Sufi community (Mirkhord, 1978: 344). Nizamuddin Auliya due to dominate the Persian language, to convey moral and human concepts used Persian poetry. The lyrics of the poets have been considered for disciples and ordinary people, and sometimes Sultans and have had attractiveness; As Soltan Ala'ddin khalaji after the resolution of their dispute with Nezammudin Auliya was interested in the statements and his poems, and always collected his poems and statements and kept them their (Bulaq, 1997). Mentioned measures due to continuation led to spread Islamic morals and manners through the Persian language among the government and the people.

### 3.2 Asceticism oriented, personal and social ethics

Makhzan Al-Asrar Nezami (that is doctrine and influenced by Sanai's poems) was faced with welcome in the Indian sub-continent (De Bruijn, 1999: 80, 1999: 132). His poems that have been popular with greats such as Nizamuddin has stated ethical issues and stated morality in two categories of personal and social (Sotoudeh, 1994: 120). But Matla Anwar Dehlavi has dedicated most of his work to the expression of Islamic teachings. In the individual ethics calls human to perfection (Amir Khosro Dehlavi, 1975), theology Amir Khosro Dehlavi, 1975: 8), escaping the world (Amir Khosro Dehlavi, 1975) and devotion in practice (Amir Khosro Dehlavi, 1975). In social

ethics calls man to keep him from harming others (Amir Khosro Dehlavi, 1975), observe modesty and chastity (Amir Khosro Dehlavi, 1975), treated with justice (Amir Khosro Dehlavi, 1975), respect for parents (Amir Khosro Dehlavi, 1975) and has forbidden from hurting people (Amir Khosro Dehlavi, 1975) and injustice (Amir Khosro Dehlavi, 1975) and betrayal (Amir Khosro Dehlavi, 1975).

The author has divided his book into twenty-three parts that much of it is advice to the Ethics and Religious Affairs. In his book, which is called "private" calls the reader to worship and obedience to God and. Although he considers worship initially difficult (Amir Khosro Dehlavi, 1975), but he believes the end of slavery is being special to God. He requires courage and will to pass the path (Amir Khosro Dehlavi, 1975).

Dehlavi in Article Fourth of his book has considered the basis of Muslim in five things and called the reader to respect them. He has considered the first pillar Declaration of Faith and the second pillar prayer that everyone that wants the world and the Hereafter through which can access to it. He in describing the second case considers the aim of the creation of man to worship God. He believes all things, each as much as possible are worshiping God (Amir Khosro Dehlavi, 1975). He blames man due to negligence in prayer and blames people for not accepting Islam in the heart and mind. He considers prayer due to the fact that by the truth of prayer, all the pillars of human will be true. The third pillar of slavery and Muslims is Zakat that saves man from worldly and eternal injuries. He calls rich people to pay Zakat as Allah has given them without obligation. The next element is fasting in the perspective of Dehlavi that makes purity and protecting people from the fire of hell. He states pilgrimage as the last pillar and calls Muslims to bring the divine and inspired by Hindus who worship their idols by suffering and difficulty (Amir Khosro Dehlavi, 1975).

In the fifth article of Matla Anwar, he calls the reader to the greater jihad that is the struggle with esteem and respect virtue. He considers limited period of human life in this world and calls him to have opportunity, trying to please God, quit drinking that was customary during the Sultans of Delhi. He introduces wine causes the weakness of will and corruption of ideas. He criticizes his era and its people and he nagged because they not consider the debauchery and corruption as shame but they are very proud of it. He considers the way of life of Muslims based on Hindu custom that only claim Muslim (Amir Khosro Dehlavi, 1975). Another part of the book that reveals Islamic moral and behavior individually and socially is an argument that Dehlavi states about respect and honor to relatives. In this case, in the tenth article calls the reader to honor parents and the position of mother of the child and considers nothing the efforts of children to compensate for any trouble. He considers the beginning of training children from childhood and the result of oppression to parents will be oppression of children of Men to him.

Author has preferred nobility to a large number of children and more children makes difficult economic situation. The other thing he mentioned is that if a man was considered the great of family, he should support members of family and tolerate difficulties because of it (Amir Khosro Dehlavi, 1975). As the author has dedicated the fifth introduction to fight with soul, in the twelfth article suggest fighting against external enemies and martyrdom. He considers fight against external enemies causes to destroy the sins of man. He considers masculinity in preparation for full-scale to fight and while praising Islamic fighters likens looters who for looting by the army of Islam to the pilgrims on the Hajj to trade; in fact, their main purpose is trade (not worship). He has named rites of battle in Islam to fight and kill for God, punishing opposition and the defeated based on the amount of crime and hatred, not kill women, not mistreated prisoners of war. He also calls fighters to strengthen weapons to be resolved areas of meanness and thorns of them from path.

Amir Khosro Dehlavi in Article Fourteenth of his book praise cases such as self-respect, contentment and lawful and unlawful

respect, fairness, integrity and recommend human to it. In this section of his book, he criticizes pretending to Islam and trick in social issues and those who truly fear Allah considers little. The fear of Day of Judgment is another case that was studied in this paper (Amir Khosro Dehlavi, 1975).

In the book of Javame Al-Hekayat of 'Awfi, also it can be observed numerous social and moral issues. The book is written in four parts and in twenty-five chapters as follows: The first kind: the knowledge of God, the miracles of the prophets, saints' dignity, caliphs; the second type: express morality of Hamida and Marzieh, the third part: indecent ethic and the fourth part: state of servants, territories and natures wonders and animals natures. The content of book (as Iutmish court minister has pointed out) due to past way in personal and social matters from mystic to the king and the result of their actions in this world is considered experience and capital for life ('Awfi, 2007) In this book, two thousand one hundred and thirteen narratives are mentioned, most of which has been documented and name of their references is listed. In addition to the history of Islam that is much of the contents of this book, the use of narrative books like Qabus Name indicates the comprehensiveness of this book so that all issues related to the history of civilization, literature, ethics and Islamic Sciences is discussed and in the development of ethics and Islamic mysticism among the people, courtiers and kings of Indian subcontinent has been affected ('Awfi, 2007).

### 3.3 Advice to Islamic ruling

Article Thirteenth of the book of Matla Al-Anvar Dehlavi reminded the Muslim ruler. He advised the Sultan to the accounts and the Day of Judgment and warns him from the oppression of the people and subordinates and asks him about the judgments and decrees that exports to be careful because on the Day of Judgment must answer for his actions. Sultan should not spend all his time to binge and hunting since it will follow their discontent and dissatisfaction of them in the fall of the government will be very effective. Sultan should note concerning the taxation that observes fairness and moderation. Sultan justice is as an amulet that by the lack of it in judicial matters and punishment of individuals, disaster key of government will be made. Justice Sultan although have many enemies, but with the support of the people that are pleased of his justice, he would continue to rule. The government needs to consider accumulate treasury and living conditions of people and especially the poor together, and while people are living in poverty not only just think about treasury stock. From the perspective of Amir Khosro Dehlavi, governing conduct in state affairs should be something like saws that observes justice and equality and does not like ax that not to complied other side. He must be careful to relatives and people around him because the lack of attention and auditing of their work will cause to oppress the peasants. Rulers at the top of society are such as lights that give the community light and make around facing difficulty. So it is natural that the Sultans to improve and advance their goals put brokers in the government in hardship. The ruling of Islamic society should be religious in state affairs, and not pass the night with drinking. He must have spies who have eyes and ears and seeing and hearing news from different parts of the government to transfer him. Sultan should note that the difference in commands will be disruptive and state and government will lose its true function. The governor must adapt and compromise in matters of government and does not apply severity in all cases. Nickname of ruler is due to family and good brokers and should not be expected despite the wicked brokers remain a good name of Sultan. Sultan should note that his sentence is as the sun in the sky that for all equally have light and heat so that in largesse should be visited all and does not discriminate. Largesse has big name when the obtained wealth not be through oppression; otherwise it will follows infamous for ruling. Sultan must be careful that his job as governor is to protect the people and not the oppression and bullying that it is the feature of thieves and bandits (Amir Khosro Dehlavi, 1975: 251-241).

### 3.4 The fight against oppression and injustice

Amir Khosro Dehlavi in Majnun and Leyli also sporadically has raised ethical issues. The authors first asked God to help him, to not be flatter others. He speaks about his hatred of oppression, injustice in his effect Leyli and Majnun and likened oppression to bloody sword that its cause is the destruction and hatred for others only for oppressor humans and asked the reader to not have mercy and compassion towards ruthless humans as he also not had this sense to the oppressed (Amir Khosro Dehlavi, 1974)

### 4. Conclusion

Immigration of Persian poets to the Indian sub-continent was along with the formation of the first Muslim state in the region. Among the poets were some immigrant has the ability and competence of the government, and some pursued Islamic objectives, so that they could affect the behavior and performance of rulers and sultans gradually and accompanied their moral and Islamic mysticism. Persian poetry because of its moral themes reflects the Islamic and human behavior. Immigrant poets and scholars with their Persian poetry that sometimes clearly imitated Iran's Persian poetry and literature tried to achieve satisfaction of sultans and rulers who were interested to the moral poetry and Sufi of poets of Iran. In summary, the formation of an Islamic state by servants of Ghori government that not had Islamic background as well as neighboring Iran with the Indian sub-continent and improper conditions of Iran in terms of social and economic and in contrast good conditions in the Indian sub-continent led to Most scholars of Persian language to be present in this area. Sultans of Delhi government need to scholars, poets and artists were allowed songwriters that have different abilities in the Indian sub-continent to have appropriate cultural position and by the continuation of their cultural activities, in the promotion of Islamic ethics and behavior in Delhi sultans' state to be effective.

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## RENEWABLE ENERGY SITUATION AND WAYS TO IMPROVE IT

SEYED NEMATOLLAH MOOSAVIO<sup>a\*</sup>, FARIBA AZIK<sup>b</sup>

<sup>a</sup>Associated Professor, Department of Agricultural Economics, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran

<sup>b</sup>PhD Student of Agricultural Economics, Department of Agricultural Economics, Islamic Azad University, Marvdasht, Iran

\*Seyed\_1976mo@yahoo.com, <sup>b</sup>Fariba.azik@yahoo.com

**Abstract.** Renewable energy is energy that is collected from renewable resources, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat. Opposition is the culprit behind many delays in renewable energy (RE). Use of renewable energy is in the field of power generation, heating and Transportation. Renewable energy can reduce air pollution. Cut global warming emissions, create new jobs and industries. Diversify our power supply and Decrease dependence on coal and other fossil fuels. Mainstream technologies is included wind power, hydropower, solar energy, geothermal energy and bio energy. Market and industry trends Is a source for Energy storage. Move America toward a cleaner, healthier energy future.

**Keywords:** Renewable energy, Types of renewable energy, improving renewable energy

### 1. Introduction

Renewable energy is energy that is collected from renewable resources, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat (Ellabban, et al., 2014). Renewable energy often provides energy in four important areas: electricity generation, air and water heating/cooling, transportation, and rural (off-grid) energy services (Sawin, et al., 2004). Renewable energy provided an estimated **19.1%** of global final energy consumption in 2013. The share of **modern renewable energy** increased to 10.1%. The share of **traditional biomass** was of 9%, same as in 2012. Renewables accounted **27.7%** of global power generation capacity and **22.8%** of global electricity demand.

•Renewables made up for **59%** of net additions to global power capacity.

•Total RE power capacity: **1712 GW**, an increase of more than 8.5% over 2013 (Komor, 2015).

Renewable energy often displaces conventional fuels in four areas: electricity generation, hot water/space heating, transportation, and rural (off-grid) energy services:

#### 1.1 Power generation

By 2040, renewable energy is projected to equal coal and natural gas electricity generation. Several jurisdictions, including Denmark, Germany, the state of South Australia and some US states have achieved high integration of variable renewables. For example, in 2015 wind power met 42% of electricity demand in Denmark, 23.2% in Portugal and 15.5% in Uruguay. Interconnectors enable countries to balance electricity systems by allowing the import and export of renewable energy. Innovative hybrid systems have emerged between countries and regions.

#### 1.2 Heating

Solar water heating makes an important contribution to renewable heat in many countries, most notably in China, which now has 70% of the global total (180 GWth). Most of these systems are installed on multi-family apartment buildings and meet a portion of the hot water needs of an estimated 50–60 million households in China. Worldwide, total installed solar water heating systems meet a portion of the water heating needs of over 70 million households. The use of biomass for heating continues to grow as well. In Sweden, national use of biomass

energy has surpassed that of oil. Direct geothermal for heating is also growing rapidly (Gowlett, 2015). The newest addition to Heating is from Geothermal Heat Pumps which provide both heating and cooling, and also flatten the electric demand curve and are thus an increasing national priority (Kris Hirst, 2013; Density, 2013).

### 1.3 Transportation

Bioethanol is an alcohol made by fermentation, mostly from carbohydrates produced in sugar or starch crops such as corn, sugarcane, or sweet sorghum. Cellulosic biomass, derived from non-food sources such as trees and grasses is also being developed as a feedstock for ethanol production. Ethanol can be used as a fuel for vehicles in its pure form, but it is usually used as a gasoline additive to increase octane and improve vehicle emissions. Bioethanol is widely used in the USA and in Brazil. Biodiesel can be used as a fuel for vehicles in its pure form, but it is usually used as a diesel additive to reduce levels of particulates, carbon monoxide, and hydrocarbons from diesel-powered vehicles. Biodiesel is produced from oils or fats using transesterification and is the most common biofuel in Europe.

A solar vehicle is an electric vehicle powered completely or significantly by direct solar energy. Usually, photovoltaic (PV) cells contained in solar panels convert the sun's energy directly into electric energy. The term "solar vehicle" usually implies that solar energy is used to power all or part of a vehicle's propulsion. Solar power may be also used to provide power for communications or controls or other auxiliary functions. Solar vehicles are not sold as practical day-to-day transportation devices at present, but are primarily demonstration vehicles and engineering exercises, often sponsored by government agencies. However, indirectly solar-charged vehicles are widespread and solar boats are available commercially (Sartori, 2008).

### 1.4 The power of renewable energy

Renewable energy is a practical, affordable solution to our electricity needs. By ramping up renewable energy, we can:

- Reduce air pollution
- Cut global warming emissions
- Create new jobs and industries
- Diversify our power supply
- Decrease dependence on coal and other fossil fuels
- Move America toward a cleaner, healthier energy future (Boyle, 1997).

### 1.5 Ramping up renewables: Energy you can count on

Renewable energy is growing rapidly, with record numbers of new wind and solar installations coming online in the U.S. over the past few years. We can readily continue this rapid expansion of renewable energy by utilizing existing technologies, investing in improvements to our electricity system, and making smart policy decisions that move the country toward a clean energy future (Masters, 2013).

### 1.6 History

Prior to the development of coal in the mid-19th century, nearly all energy used was renewable. Almost without a doubt the oldest known use of renewable energy, in the form of traditional biomass to fuel fires, dates from 790,000 years ago. Use of biomass for fire did not become commonplace until many hundreds of thousands of years later, sometime between 200,000 and 400,000 years ago (Marszal, 2011). Probably the second oldest usage of renewable energy is harnessing the wind in order to drive ships over water. This practice can be traced back some 7000 years, to ships on the Nile. Moving into the time of recorded history, the primary sources of traditional renewable

energy were human labor, animal power, water power, wind, in grain crushing windmills, and firewood, a traditional biomass. A graph of energy use in the United States up until 1900 shows oil and natural gas with about the same importance in 1900 as wind and solar played in 2010. In the 1860s and '70s there were already fears that civilization would run out of fossil fuels and the need was felt for a better source. In 1873 Professor Augustine Mouchot wrote: The time will arrive when the industry of Europe will cease to find those natural resources, so necessary for it. Petroleum springs and coal mines are not inexhaustible but are rapidly diminishing in many places. Will man, then, return to the power of water and wind? Or will he emigrate where the most powerful source of heat sends its rays to all? History will show what will come.

In 1885, Werner von Siemens, commenting on the discovery of the photovoltaic effect in the solid state, wrote:

In conclusion, I would say that however great the scientific importance of this discovery may be, its practical value will be no less obvious when we reflect that the supply of solar energy is both without limit and without cost, and that it will continue to pour down upon us for countless ages after all the coal deposits of the earth have been exhausted and forgotten.

Max Weber mentioned the end of fossil fuel in the concluding paragraphs of his *Die protestantische Ethik und der Geist des Kapitalismus*, published in 1905.

Development of solar engines continued until the outbreak of World War I. The importance of solar energy was recognized in a 1911 *Scientific American* article: "in the far distant future, natural fuels having been exhausted [solar power] will remain as the only means of existence of the human race".

The theory of peak oil was published in 1956. In the 1970s environmentalists promoted the development of renewable energy both as a replacement for the eventual depletion of oil, as well as for an escape from dependence on oil, and the first electricity generating wind turbines appeared. Solar had long been used for heating and cooling, but solar panels were too costly to build solar farms until 1980.

The IEA 2014 World Energy Outlook projects a growth of renewable energy supply from 1,700 gigawatts in 2014 to 4,550 gigawatts in 2040. Fossil fuels received about \$550 billion in subsidies in 2013, compared to \$120 billion for all renewable energies.

## 2. Mainstream technologies

### 2.1 Wind power

Main article: Wind power



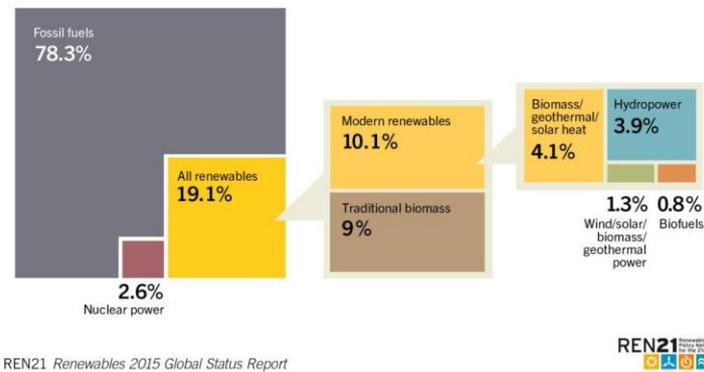
Figure 1 The 845 MW Shepherds Flat Wind Farm near Arlington, Oregon, USA

Airflows can be used to run wind turbines. Modern utility-scale wind turbines range from around 600 kW to 5 MW of rated power, although turbines with rated output of 1.5–3 MW have become the most common for commercial use. The largest generator capacity of a single installed onshore wind turbine reached 7.5 MW in 2015. The power available from the wind is a function of the cube of the wind speed, so as wind speed increases, power output increases up to the maximum output for the particular turbine. Areas where winds are stronger and more constant, such as offshore and high altitude sites, are preferred locations for wind farms. Typically full load hours of wind turbines vary between 16 and 57 percent annually, but might be higher in particularly favorable offshore sites.

Wind-generated electricity met nearly 4% of global electricity demand in 2015, with nearly 63 GW of new wind power capacity installed. Wind energy was the leading source of new capacity in Europe, the US and Canada, and the second largest in China. In Denmark, wind energy met more than 40% of its electricity demand while Ireland, Portugal and Spain each met nearly 20%.

Globally, the long-term technical potential of wind energy is believed to be five times total current global energy production, or 40 times current electricity demand, assuming all practical barriers needed were overcome. This would require wind turbines to be installed over large areas, particularly in areas of higher wind resources, such as offshore. As offshore wind speeds average ~90% greater than that of land, so offshore resources can contribute substantially more energy than land stationed turbines. In 2014 global wind generation was 706 terawatt-hours or 3% of the world's total electricity.

Estimated Renewable Energy Share of Global Final Energy Consumption, 2013



Estimated Renewable Energy Share of Global Electricity Production, End-2014

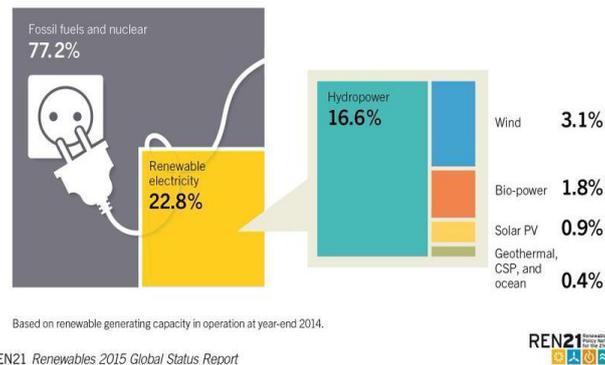


Figure 2. Estimation of renewable energy worldwide

## 2.2 Hydropower

Main articles: Hydroelectricity and Hydropower



Figure 3. The Three Gorges Dam on the Yangtze River in China

In 2015 hydropower generated 16.6% of the world's total electricity and 70% of all renewable electricity. Since water is about 800 times denser than air, even a slow flowing stream of water, or moderate sea swell, can yield considerable amounts of energy. There are many forms of water energy:

- Historically hydroelectric power came from constructing large hydroelectric dams and reservoirs, which are still popular in third world countries. The largest of which is the Three Gorges Dam (2003) in China and the Itaipu Dam (1984) built by Brazil and Paraguay.

- Small hydro systems are hydroelectric power installations that typically produce up to 50 MW of power. They are often used on small rivers or as a low impact development on larger rivers. China is the largest producer of hydroelectricity in the world and has more than 45,000 small hydro installations.

- Run-of-the-river hydroelectricity plants derive kinetic energy from rivers without the creation of a large reservoir. This style of generation may still produce a large amount of electricity, such as the Chief Joseph Dam on the Columbia river in the United States.

Hydropower is produced in 150 countries, with the Asia-Pacific region generating 32 percent of global hydropower in 2010. For countries having the largest percentage of electricity from renewables, the top 50 are primarily hydroelectric. China is the largest hydroelectricity producer, with 721 terawatt-hours of production in 2010, representing around 17 percent of domestic electricity use. There are now three hydroelectricity stations larger than 10 GW: the Three Gorges Dam in China, Itaipu Dam across the Brazil/Paraguay border, and Guri Dam in Venezuela.

Wave power, which captures the energy of ocean surface waves, and tidal power, converting the energy of tides, are two forms of hydropower with future potential; however, they are not yet widely employed commercially. A demonstration project operated by the Ocean Renewable Power Company on the coast of Maine, and connected to the grid, harnesses tidal power from the Bay of Fundy, location of world's highest tidal flow. Ocean thermal energy conversion, which uses the temperature difference between cooler deep and warmer surface waters, has currently no economic feasibility.

### 2.3 Solar energy



Figure 4 Satellite image of the 550-megawatt Topaz Solar Farm in California, USA

Solar energy, radiant light and heat from the sun, is harnessed using a range of ever-evolving technologies such as solar heating, photovoltaics, concentrated solar power (CSP), concentrator photovoltaics (CPV), solar architecture and artificial photosynthesis. Solar technologies are broadly characterized as either passive solar or active solar depending on the way they capture, convert and distribute solar energy. Passive solar techniques include orienting a building to the Sun, selecting materials with favorable thermal mass or light dispersing properties, and designing spaces that naturally circulate air. Active solar technologies encompass solar thermal energy, using solar collectors for heating, and solar power, converting sunlight into electricity either directly using photovoltaics (PV), or indirectly using concentrated solar power (CSP).

A photovoltaic system converts light into electrical direct current (DC) by taking advantage of the photoelectric effect. Solar PV has turned into a multi-billion, fast-growing industry, continues to improve its cost-effectiveness, and has the most potential of any renewable technologies together with CSP. Concentrated solar power (CSP) systems use lenses or mirrors and tracking systems to focus a large area of sunlight into a small beam. Commercial concentrated solar power plants were first developed in the 1980s. CSP-Stirling has by far the highest efficiency among all solar energy technologies.

In 2011, the International Energy Agency said that "the development of affordable, inexhaustible and clean solar energy technologies will have huge longer-term benefits. It will increase countries' energy security through reliance on an indigenous, inexhaustible and mostly import-independent resource, enhance sustainability, reduce pollution, lower the costs of mitigating climate change, and keep fossil fuel prices lower than otherwise. These advantages are global. Hence the additional costs of the incentives for early deployment should be considered learning investments; they must be wisely spent and need to be widely shared". In 2014 global solar generation was 186 terawatt-hours, slightly less than 1% of the world's total grid electricity. Italy has the largest proportion of solar electricity in the world, in 2015 solar supplied 7.8% of electricity demand in Italy.

### 2.4 Geothermal energy



Figure 5. Steam rising from the Nesjavellir Geothermal Power Station in Iceland

High Temperature Geothermal energy is from thermal energy generated and stored in the Earth. Thermal energy is the energy that determines the temperature of matter. Earth's geothermal energy originates from the original formation of the planet and from radioactive decay of minerals (in currently uncertain but possibly roughly equal proportions). The geothermal gradient, which is the difference in temperature between the core of the planet and its surface, drives a continuous conduction of thermal energy in the form of heat from the core to the surface. The adjective *geothermal* originates from the Greek roots *geo*, meaning earth, and *thermos*, meaning heat.

The heat that is used for geothermal energy can be from deep within the Earth, all the way down to Earth's core – 4,000 miles (6,400 km) down. At the core, temperatures may reach over 9,000 °F (5,000 °C). Heat conducts from the core to surrounding rock. Extremely high temperature and pressure cause some rock to melt, which is commonly known as magma. Magma convects upward since it is lighter than the solid rock. This magma then heats rock and water in the crust, sometimes up to 700 °F (371 °C).

From hot springs, geothermal energy has been used for bathing since Paleolithic times and for space heating since ancient Roman times, but it is now better known for electricity generation.

Low Temperature Geothermal refers to the use of the outer crust of the earth as a Thermal Battery to facilitate Renewable thermal energy for heating and cooling buildings, and other refrigeration and industrial uses. In this form of Geothermal, a Geothermal Heat Pump and Ground-coupled heat exchanger are used together to move heat energy into the earth (for cooling) and out of the earth (for heating) on a varying seasonal basis. Low temperature Geothermal (generally referred to as "GHP") is an increasingly important renewable technology because it both reduces total annual energy loads associated with heating and cooling, and it also flattens the electric demand curve eliminating the extreme summer and winter peak electric supply requirements. Thus Low Temperature Geothermal/GHP is becoming an increasing national priority with multiple tax credit support and focus as part of the ongoing movement toward Net Zero Energy. New York City has even just passed a law to require GHP anytime is shown to be economical with 20 year financing including the Socialized Cost of Carbon.

## 2.5 Bio energy



Figure 6. Sugarcane plantation to produce ethanol in Brazil



Figure 7. A CHP power station using wood to supply 30,000 households in France

Biomass is biological material derived from living, or recently living organisms. It most often refers to plants or plant-derived materials which are specifically called lignocellulosic biomass. As an energy source, biomass can either be used directly via combustion to produce heat, or indirectly after converting it to various forms of biofuel. Conversion of biomass to biofuel can be achieved by different methods which are broadly classified into: *thermal*, *chemical*, and *biochemical* methods. Wood remains the largest biomass energy source today; examples include forest residues – such as dead trees, branches and tree stumps –, yard clippings, wood chips and even municipal solid waste. In the second sense, biomass includes plant or animal matter that can be converted into fibers or other industrial chemicals, including biofuels. Industrial biomass can be grown from numerous types of plants, including miscanthus, switchgrass, hemp, corn, poplar, willow, sorghum, sugarcane, bamboo, and a variety of tree species, ranging from eucalyptus to oil palm (palm oil).

Plant energy is produced by crops specifically grown for use as fuel that offer high biomass output per hectare with low input energy. Some examples of these plants are wheat, which typically yield 7.5–8 tonnes of grain per hectare, and straw, which typically yield 3.5–5 tonnes per hectare in the UK. The grain can be used for liquid transportation fuels while the straw can be burned to produce heat or electricity. Plant biomass can also be degraded from cellulose to glucose through a series of chemical treatments, and the resulting sugar can then be used as a first generation biofuel.

Biomass can be converted to other usable forms of energy like methane gas or transportation fuels like ethanol and biodiesel. Rotting garbage, and agricultural and human waste, all release methane gas – also called landfill gas or biogas. Crops, such as corn and sugarcane, can be fermented to produce the transportation fuel, ethanol. Biodiesel, another transportation fuel, can be produced from left-over food products like

vegetable oils and animal fats. Also, biomass to liquids (BTLs) and cellulosic ethanol are still under research. There is a great deal of research involving algal fuel or algae-derived biomass due to the fact that it's a non-food resource and can be produced at rates 5 to 10 times those of other types of land-based agriculture, such as corn and soy. Once harvested, it can be fermented to produce biofuels such as ethanol, butanol, and methane, as well as biodiesel and hydrogen. The biomass used for electricity generation varies by region. Forest by-products, such as wood residues, are common in the United States. Agricultural waste is common in Mauritius (sugar cane residue) and Southeast Asia (rice husks). Animal husbandry residues, such as poultry litter, are common in the United Kingdom.

Biofuels include a wide range of fuels which are derived from biomass. The term covers solid, liquid, and gaseous fuels. Liquid biofuels include bioalcohols, such as bioethanol, and oils, such as biodiesel. Gaseous biofuels include biogas, landfill gas and synthetic gas. Bioethanol is an alcohol made by fermenting the sugar components of plant materials and it is made mostly from sugar and starch crops. These include maize, sugarcane and, more recently, sweet sorghum. The latter crop is particularly suitable for growing in dryland conditions, and is being investigated by International Crops Research Institute for the Semi-Arid Tropics for its potential to provide fuel, along with food and animal feed, in arid parts of Asia and Africa.

With advanced technology being developed, cellulosic biomass, such as trees and grasses, are also used as feedstock's for ethanol production. Ethanol can be used as a fuel for vehicles in its pure form, but it is usually used as a gasoline additive to increase octane and improve vehicle emissions. Bioethanol is widely used in the United States and in Brazil. The energy costs for producing bio-ethanol are almost equal to, the energy yields from bio-ethanol. However, according to the European Environment Agency, biofuels do not address global warming concerns. Biodiesel is made from vegetable oils, animal fats or recycled greases. It can be used as a fuel for vehicles in its pure form, or more commonly as a diesel additive to reduce levels of particulates, carbon monoxide, and hydrocarbons from diesel-powered vehicles. Biodiesel is produced from oils or fats using transesterification and is the most common biofuel in Europe. Biofuels provided 2.7% of the world's transport fuel in 2010.

Biomass, biogas and biofuels are burned to produce heat/power and in doing so harm the environment. Pollutants such as sulphurous oxides (SO<sub>x</sub>), nitrous oxides (NO<sub>x</sub>), and particulate matter (PM) are produced from the combustion of biomass; the World Health Organisation estimates that 7 million premature deaths are caused each year by air pollution. Biomass combustion is a major contributor. The life cycle of the plants is sustainable, the lives of people less so.

## 2.6 Energy storage

Energy storage is a collection of methods used to store electrical energy on an electrical power grid, or off it. Electrical energy is stored during times when production (especially from intermittent power plants such as renewable electricity sources such as wind power, tidal power, solar power) exceeds consumption, and returned to the grid when production falls below consumption. Water pumped into a hydroelectric dam is the largest form of power storage.

2.7 Market and industry trends

Main article: Renewable energy commercialization

Growth of renewables

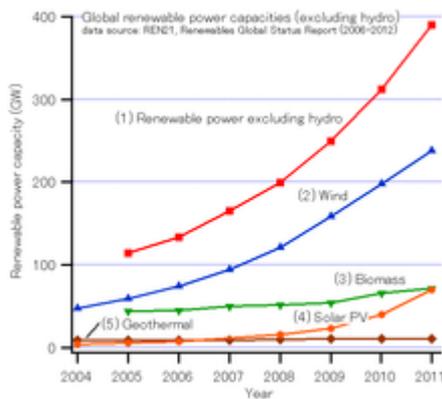


Figure 8. Global growth of renewables through to 2011

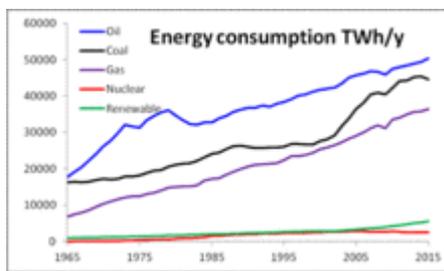


Figure 9. Comparing worldwide energy use, the growth of renewable energy is shown by the green line

From the end of 2004, worldwide renewable energy capacity grew at rates of 10–60% annually for many technologies. In 2015 global investment in renewables rose 5% to \$285.9 billion,

breaking the previous record of \$278.5 billion in 2011. 2015 was also the first year that saw renewables, excluding large hydro, account for the majority of all new power capacity (134GW, making up 53.6% of the total). Of the renewables total, wind accounted for 72GW and solar photovoltaics 56GW; both record-breaking numbers and sharply up from 2014 figures (49GW and 45GW respectively). In financial terms, solar made up 56% of total new investment and wind accounted for 38%.

Projections vary. The EIA has predicted that almost two thirds of net additions to power capacity will come from renewables by 2020 due to the combined policy benefits of local pollution, decarbonisation and energy diversification. Some studies have set out roadmaps to power 100% of the world’s energy with wind, hydroelectric and solar by the year 2030.

According to a 2011 projection by the International Energy Agency, solar power generators may produce most of the world’s electricity within 50 years, reducing the emissions of greenhouse gases that harm the environment. Cedric Philibert, senior analyst in the renewable energy division at the IEA said: "Photovoltaic and solar-thermal plants may meet most of the world’s demand for electricity by 2060 – and half of all energy needs – with wind, hydropower and biomass plants supplying much of the remaining generation". "Photovoltaic and concentrated solar power together can become the major source of electricity", Philibert said.

In 2014 global wind power capacity expanded 16% to 369,553 MW. Yearly wind energy production is also growing rapidly and has reached around 4% of worldwide electricity usage, 11.4% in the EU, and it is widely used in Asia, and the United States. In 2015, worldwide installed photovoltaics capacity increased to 227 gigawatts (GW), sufficient to supply 1 percent of global electricity demands. Solar thermal energy stations operate in the USA and Spain, and as of 2016, the largest of these is the 392 MW Ivanpah Solar Electric Generating System in California. The world’s largest geothermal power installation is The Geysers in California, with a rated capacity of 750 MW. Brazil has one of the largest renewable energy programs in the world, involving production of ethanol fuel from sugar cane, and ethanol now provides 18% of the country’s automotive fuel. Ethanol fuel is also widely available in the USA.

Table 1. Selected renewable energy

Selected renewable energy global indicators	2008	2009	2010	2011	2012	2013	2014	2015
Investment in new renewable capacity (annual) (10 <sup>9</sup> USD)	182	178	237	279	256	232	270	285
Renewables power capacity (existing) (GWe)	1,140	1,230	1,320	1,360	1,470	1,578	1,712	1,849
Hydropower capacity (existing) (GWe)	885	915	945	970	990	1,018	1,055	1,064
Wind power capacity (existing) (GWe)	121	159	198	238	283	319	370	433
Solar PV capacity (grid-connected) (GWe)	16	23	40	70	100	138	177	227
Solar hot water capacity (existing) (GWth)	130	160	185	232	255	373	406	435
Ethanol production (annual) (10 <sup>9</sup> litres)	67	76	86	86	83	87	94	98
Biodiesel production (annual) (10 <sup>9</sup> litres)	12	17.8	18.5	21.4	22.5	26	29.7	30
Countries with policy targets for renewable energy use	79	89	98	118	138	144	164	173
Source: The Renewable Energy Policy Network for the 21st Century (REN21)–Global Status Report								

3 ways to improve renewable energy communications

Opposition is the culprit behind many delays in renewable energy (RE). Some is due to misconceptions, while others are legitimate environmental concerns. Because the growth of renewable energy seems inevitable, many governments and stakeholders worldwide have developed communications strategies to debunk myths and provide actual facts about RE. The IEA-RETD recently released “Communication Best-Practices for Renewable Energy (RE-COMMUNICATE) – Scoping Study” analyzing 15 case studies on renewable energy communications campaigns and highlighting areas for improvement. Below are a few areas that the study notes can increase campaign success:

1. Increase partnerships to increase RE communications campaign funding. Currently, the lack of funding resources represents a significant barrier to effective communications strategies.
2. Thorough pre-campaign research aids in better understanding the public’s opinion on RE. This helps segment and define the audience allowing the creation of specific, targeted communications messages.
3. RE campaign strategies should be developed in stages to maximize effectiveness and impact.

4. Behavioral economics should be taken into consideration when developing RE communications strategies. The goal is to influence attitudes, raise awareness, and change behaviors toward RE.

5. For quality control, ongoing and post-campaign evaluation should be consistently applied at all stages of the RE communications process. The results can be used for future campaigns.

6. Proactive communication strategies are key when responding to negative media coverage about RE. Increased communication with the media helps avoid misrepresentation of the facts.

More targeted, effective renewable energy communications campaigns are possible through the use of consistent, and comprehensive approaches to pre- and post-campaign development. Read the entire case study here or visit International Energy Agency – Renewable Energy Technology Deployment (IEA-RETD).

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## INVESTIGATING THE PRINCIPLES OF AXIOLOGY AND ONTOLOGY OF CHILDHOOD AND ITS IMPLICATIONS IN EDUCATION FROM THE PERSPECTIVE OF AHLEBEYT (AS)

<sup>a</sup>HEYDAR ESMAEILPOUR, <sup>b</sup>PARVANE DOODMAN

<sup>a</sup>Faculty member, PNU mailbox, 19395-3697, Tehran, Iran

<sup>b</sup>Faculty member, PNU mailbox, 19395-3697, Tehran, Iran  
Bahador Changizi

Email: <sup>a</sup>heydaresmailpur.e@gmail.com, <sup>b</sup>fdoodman@gmail.com

**Abstract.** The emergence of man on earth is always with coherence and inseparable solidarity of values and norms. Education is including the areas of human perfection that attention to it follows effective results in the field of human behavior that this area includes cases such as procedures, goals, methods, and so on. One of the characteristics of education issue or human is the stages of his life that is divided to infancy periods, childhood, adolescence, adulthood and old age. The aim of this study is to investigate philosophy of critical period of life or childhood and adolescence. The results indicate that the triple relationship between parents and child and God is formed based on the love and emotions and by the shortcomings of the essence of Islam, the human character will be defected.

**Keywords:** childhood, adolescence, axiology, ontology, education

### 1 Introduction

Education of human based on values and divine teachings is an issue that follows useful results or with disadvantages in human life. Each of the eras of human life is with features that attention to them is based on Islamic injunctions shaping feature for him. As we know, according to the Quran, every religion has a separate identity and special for its own that action and behavior based on those traits determine the survival of life on the realm of cultures systems and varied ideas. Among the most important issues of anthropology in Islamic teaching is the period of man's life. Two critical periods of childhood and adolescence are including cases that while Islamic teachings taken into consideration. According to Islamic beliefs and assumptions contained in the Islamic world, there is a kind of continuity and link between the material world and the Hereafter of man. Man is somehow that always a balance between these two worlds can be seen. The human world is not confined to this material world. Based on the teachings of Islam, man tries to find his actions and activities in another world. On this basis, two limit of excess and wastage not have any place in human thought. On this basis, Muslim man pays attention to dual aspects of body and soul, and in this regard, he tries to fully meet the dual needs of its existence. Child and adolescent of Islam, unlike Christian thoughts, not merely pay attention to asceticism and seclusion. Also, unlike schools of liberalism, materialism does not limit itself to the world of small and minor.

Here we introduce what, why and how childhood and adolescence, or as the dominant philosophy on these two important periods of human life (axiology and ontology) and its implications in the field of education.

**The axiology of childhood and adolescence:** the human existence and mystery of his creation is an idea that has occupied his thought many times. In line with the formation of such thoughts, every ritual and religious, Christian, Jewish and ... with a particular conception of man has tried to raise the human characteristic and properties of man in different periods of childhood, adolescence, youth, etc. based on his intellectual beliefs. Islam has tried to draw distinctive character and identity to the man while attention to the importance of this periods. As we know, philosophical approach to the man follows inevitable effects in different fields of social, political, cultural and ... Education is also among the areas that the seeds and seedlings of the formation of these periods in human determines good and evil path and perdition or guidance. On this basis, drawing identity and character of childhood and acting it is a necessity, which naturally follows influences in the field of education and should be considered by specialists of various fields, including education. Themes and motifs of various fields and including

philosophy refer to the words of defects and benefits of this sensitive territory as well.

The rise of good and evil roots in childhood is a fact that Islam while spreading its basic teachings has mentioned it. As well as forming the foundation of monotheism and Islamic beliefs in childhood and elementary ages and dealing with such reality is considered by Islam. In the field, Quran has sent command of Imamate in childhood to its own prophets and religious leaders. Jesus says: "No adult will go ascension unless returns to his childish" (Karimi, 2011).

### 2 Importance of existing child and adolescent:

Existing pivotal and fundamental beliefs of any religion specifies the nature of the issues that needs more attention. More explanation is that beliefs about the world and the hereafter, God and ... affect man's attitude to other things. For example, in Islam due to the belief in the Hereafter and monotheistic approach, considering the issue of heritability and genetic reflects in a different way. Prophet in relation to the importance of child's inheritance and one's past role in his training believes: "Look in what position you placed your child (Khansari, 2006). "Marry to worthy families (Ibn Athir Jazari, 1988). Cohesion of intimate relationship of children and adolescents and their parents in Islam and the Quran have been considered. The purpose of this sort of attention to being together is nothing but correct implementing Islamic education principles in Muslim people.

The importance of child and childbearing, according to the vision and intellectual beliefs of individuals and the various schools have been interpreted in different ways. In total, human being and consequently child and adolescent have had great importance. Prophet Muhammad emphasizes this notion that child has had value and special status in Islamic insight: "Marriage to be increased, I am proud to you on Judgment Day, even to a child who has been aborted" (Kashani, 1421) Prophet with his word gives great importance to the people and his group and Muslims and promotes Muslim people and their numbers. Divine caliph as a human being not allows dealing with children and adolescents in any way. Child and Adolescent have God spirit and we don't have right to behave them against God's command.

When it was given good news to Imam Sajjad that has child, before asking a boy or a girl, He asked! Is it healthy? And when he realized, he is healthy, he said: I thanked the gods that not created unhealthy creature from me. So the wisdom of the existence of child and adolescent, regardless of their gender, it is a rating and privilege that attracts the man's thought. As we observe in Imam Sajjad's word, he has emphasized on health and baby's health status.

**The value of childhood and adolescence from the perspective of Islam:** According to religious worldview and Islamic view, human character has different periods of childhood, adolescence, adulthood, old age and ... (Bagheri, 2006). In Islam, child's existence has a great importance. In Islam and based on religious approach, child has the highest and most precious status and childbearing is the most serious responsibilities and mission. In the God's worldview, child is as a gift that from the realm of God's grace is given to parents:

The absolute dominion of the heavens and the earth is for God; Whatever He wills, He can create, to anyone who wants, gives daughter and to whom He wants, gives son; Or gives them son (s) and girl (s) with each other and whom He wants, makes sterilization, He is the Knower mighty. It seems the idea of reforming society and progress and excellence perspective of human not restricted to his thinking and the overall impression of the community, but to educate human beings, individual

elements and train them must be always considered by those involved in the programs of various spheres of human thought. Child and his training is the elements that should try a lot for training and protecting him from intellectual and cultural risks. Childhood and adolescence is including periods that is the time of forming their personality and thinking ideal bases. It is based on the value of childbearing and consequently education of two critical periods of childhood and adolescence that pleadings of parents about asking in such a way from Qur'an and word of the Lord are expressed, and those who say Lord, give us wives and offspring that causes the joy of our eyes and make us leader of the righteous".

According to emphasize religious texts, the Prophet and the Imams of Islam, parenting plays a key role in the sequel, and the fate of the parents. It is according to the importance of this period that in Islam, a kind of continuity and coherent communication and coordination between the relationship with God, parents and children can be seen. Childhood and adolescence is point of hope and the removal and disposal of some weak points that parents during lifetime have tried to experience it. Based on the teachings of religion, child and adolescent are continuant and heritage of Islamic culture that achieved it by parents.

**1. The role and value of love to child and adolescent in religious education:** love to human being is a need that at various schools of thought has responded it in different ways. Islam in this regard has a view that pay attention to it has a significant role in the upbringing of the individual. Imam Sadiq in love and happy the child said: Anyone who kisses his son, Allah writes for him the reward and anyone who makes him happy, God will make him happy at Day of Resurrection, too and whoever teach him Quran, his parents will be invited and two dresses are covered by them that from their light, paradise faces will be luminous.

Integrity and not break and distance between the various elements of human character, nature and God is the creator of a new look to the man and his activities. As we know, Islam according to the Prophet and harbinger of this religion is a moderate and balanced creed in all areas and away from any excess and defect. In such a way that the Prophet has mentioned in this context that, "the best practices and affairs is average of them". This saying of the Holy Prophet inspired the notion that Islam not accepts excess and defect in any matter by the excuse to ignore other aspects. Prophet blame on a person, who prayed and had neglected the family income, represents a comprehensive look of Islam to humans. (Shariatmadari, 2000).

By these descriptions, it seems in the education system and upbringing of the child and adolescent should also note this issue that excess and defect creates great loss; Description that school and education system is as a teaching and learning environment on cognitive aspects and its important aspect that Islam gives great importance to it, ie emotions, feelings and emotions of man is forgotten man. However, according to Islam, religion is not something other than kindness. The Holy Prophet says "love children and be kind with them"

As we know, by expanding the mankind activity of current era in various fields, education of person has been associated with problems. Some of these cases are facing men and women to work and economic activity. Because of the men and women working and job and changing life patterns, we can see the spread of kindergartens and the arrival of children to this strange land. An environment that by various excuses, child separates from the warm and friendly arm of kind mother and spends the best time of creation and the need to love in an unfamiliar environment of kindergarten. What is the Islamic model to receive such love? What should be the role of parents, especially mothers in this area?

So we see that the need and the base of activity of Muslims and believers is in love and it is affection that creates ripple moves

and echo rate of change, dynamism and movement in person. Imam Ali says: "Be gentle with children of your family and respect for your family's elders. (AL-Amali, Mofid, 2009)

Love is a need that should be answered it and did not neglect of its value in the live of child and adolescent. Imam Sadiq in the field of love to child said: (22) Allah has mercy on a man who loves his child. Man according to time position and lifetime needs to receive love in childhood and mother's arm is the most natural place to grow seedlings of hope and perfection. To fit the ages and the time, the child enters adolescence stage and called for love and affection. Here the way of fall and rise and error and guidance based on receiving love of childhood represents the importance of love or lack of it. An adolescent who not received the love of family and in this way acted to get it improperly, is likely to receive much damages from the environment. For example, one of the areas of contacting an adolescent who passed childhood is to deal with the phenomenon of relationship with the opposite sex. A child, who received affection from his parents in childhood, not feels deficiency or malnutrition and in connection with opposite gender has a reasonable behavior. But the opposite point is the adolescent that according to the situation and family conditions not received much love from parents and in here to compensate for psychological complexes and love, according to his need faced with any wrong action although inappropriate in connection with the opposite gender.

So pay attention to love children and adolescents according to their position is the necessities that in the case of non-attention will bring irreparable damages. As a result, turning to sub-activities to the main operations or receiving affection is a point that should be considered by parents and education authorities. The Holy Prophet has emphasized the love of man, especially in childish ages. In this context, he says: "love children and be kind to them". Love and linking the father, mother and children and the importance of the family foundation in the perspective of Islam is necessary that has raised the basic foundations related to cognition and enough attention to human.

### 3 Educational value of curtsey and adherence to religious practices

The realization of the fundamental ideas related to religion and matters related to it is in such a way that the implementation of its orders in real life is the major concerns. For this purpose, Quran and its teachings should be used in human life. Including commands that the Quran emphasizes it a lot is social customs observance of human being contact with each other or the courteous of sociality. In other words, teachings of Islam are based on observing commands and attention to them. Imam Sadiq (AS) said that Loghman said to his son:"

O son, if you taught curtsey in childhood, you will benefit it in adulthood. someone who is going to learn curtsey tries to get it and one who efforts to learn curtsey and learns the educational sciences and with the most intensity gets ethics and one who separately tries finally will be succeed, and he gets its benefits "(Bahar al-Anwar, 1998).Compliance difficulties and behavioral problems in children and adolescents reflects the human desire to Islamic education with an approach that is promising. Many Islamic educational concepts since the beginning of the ceremony to present time have been rooted in the observance of this religious customs.

Imam Baqer in the field of child rearing based on values and religious norms believe that raising children is the best way of familiarity of child with religious themes and concepts that is important for the development of the personality of Muslim man." Let your child to be free up to seven years to play, and seven years later care him, if he accept religion and education, it will be good otherwise any good in him" (Baharolanvar, 1995).Child-rearing practices and situation and his condition is the way of human education in life. Freedom with considering the limitations of human life is the cases that appear in the Liberal school (Gotak, 2009).

It seems three periods raised by prophet is the most essential things that draw the perspective of how to train human. In the first period, individual has freedom and more opportunity to his own activities and in the field, little restriction for his activities can be seen. In other words, in this period, child has the opportunity to develop and display his innate talents. It seems that familiar with the norms, rules, principles, etc. in the next period ie second seven years that can be seen.

Certainly freedom of the child in the previous period will not give the criterion of any activity to human. In other words, one must show Islamic education in his behavior and realization of such an issue is adherence to the laws and rules that expected him. So the child is required to follow some orders during his own life.

Amir Al-Momenin says: Anyone who not suffers from hardship in his childhood, in adulthood does not reach to be smart and dignity (Ghararohakam). Customs and observe some rules is necessary for human education. Children's education as a fundamental activity is rooted in the fundamental elements of society, culture, etc. It seems that education and extracted comments is on the basis of ideas of personal and individual that people have inferred it from texts and sources and have neglected of other important elements in shaping education and customs and curtesy and adherence to the principles is the cases that have been neglected by human.

Naturally, expect of child and especially adolescent, according to growth stage and new property and his character is the creator of questions and curiosity about the cosmos. On this basis, child and eager expect to benefit and profit of religious teachings and explaining them is in practice and reality. Teen welcomes the affairs that have a result. It seems to have a plan and an efficient use of time and resources is always an idea that in Islamic teachings can be seen. Islam not accepts spirit of absurdity and futility on human activities and on this basis that it believes to spirit ultimate on human activity "Do you think that God has created you in vain (). So, Muslim man draws an outlook for the activities and affairs of life. Accordingly, Aman Ali (as) in this area suggests a kind of purposive activity for teens:

The best thing that teenagers should be learned is the things that they will need in their adulthood. Imam Ali's word (AS) is a kind of accepted custom and practice governing human activities that should always be the priority of human activity. As we know the customs of Islamic education in various fields of value and educational practices in the field of education of child and adolescent can be seen. Holy Prophet (pbuh) said to a man who kissed one of his sons and not the other one: why you did not observe equality among them?

This kind of message of the Word of God is on this basis that the formation of the concept of justice is essential in human behavior. So teen and his parents in the form of custom as a courteous manner learn that discrimination and violence should be one of the ideas of human. One must realize the fact that the only criterion for acceptance of correct behavior on nearness to God is the behavior based on accepted Islamic rituals and customs. Preparing teens for religious practices and admission of unity is from the other cases that from the time of childhood have been emphasized by prophets and imams of religion. In this case, it can be referred to the performing of religious practice by children and adolescents. In this context, the Holy Prophet said: "when our children became seven years old, we should command them to perform prayer and fasting as much as they can perform."

Expanding the boundaries of human access to information and knowledge with issues such as globalization and cultures engagement is the provider of opportunities and threats for various fields, including culture, education and more. In some cases, the mentioned threats are as this that engaging family and child with the issues of the so-called educational that was merely superficial replaces the traditions and the duties and obligations

of children and adolescents. Therefore, in education, the ultimate goal of education for child and adolescent in Islam and his religious identity and distinctive should be considered.

An example that Imam Ali has stated about the traditions of shaping the Islamic character is the compliance and tolerance of problems that give the exalted status of the person. In the field, customs of dependence and follow the directions by their followers is the reality that represents following and obeying of infants and children from religious leaders and the commands of the Qur'an. For example, stating patterns as Ali Akbar and Ali Asghar in Karbala shows the deep respect and love of children and parents, as well as respect for God's orders. So endure hardships, according to verse 4 of Surah Balad reflects the principle and the concept of tolerance of suffering and its important role in education of human. Therefore, according to Alawi (2013) hardness and problem for child not seems as unexpected practices and it is a situation unlike this case that is the creator of abnormal situation in human life. Courtesy and display it in the behavior of Muslim shows belief and practice of his activity. In addition, it represents environment and atmosphere that man has grown in it. Religious stories in this field indicate the effects that the individual has accepted from his religion.

For example, the story of man's encounter unfamiliar to perform ablutions for the prayer and Imam Hossein and Imam Hassan behavior suggests religious appropriate behavior that these two dear Imam in adolescence have done ": One day, Imam Hassan and Imam Hossain peace be upon them passed from one place, they saw that an old man was performing ablution, the ablution was wrong, meanwhile, Imam Hasan and Imam Hossein PBUH & HP each said: my ablution is better! In this case, they came to old man and said: O old man! We two perform ablution and you watch and then tell us and say ablution of which of us is better! Since then, both brothers performed ablution and when the ablution ended, they asked ablution of which of us is better?! The ignorant old man, said: ablution of both of you is good, this is my ablution that is not true, however, by blessed love and kindness that have for your ancestor, I learned.

Courtesy and manners in Islam in various aspects of personal, social, political, sexual is the cases that are considered in Islam. It seems that sexual education is one of the issues that by the expansion of human communications technology, the Internet, satellite and ... is more important. In this context, in accordance to adolescence and beginning of the physiological changes, physical and sexual, and changes in appearance between males and females, it should be noted to sexual problems and solutions applicable in this regard. Lack of attention to the issue will follow irreparable damage in education. In this regard in the Qur'an with the arrival of the man to this era is bound to respect the religious customs that holy Quran has stated it: (59 / Noor) and when your children reach puberty, they must ask permission, as those before them asked permission.

#### 4 Conclusion

Investigating what, why and how phenomena of the universe or the dominant philosophy on the universe is among the issues that affects all fate of human beings. Including philosophical influences of intellectual systems and human thought is to create and produce intellectual productions in the real world. It seems that events surrounding the world and universe explain the philosophy dominant on the human mind. Among the intellectual schools and owner of culture and the eternal teachings can be cited Islam. Islam is able to promote moderate and balanced ritual according to the old motto of the ritual by expressing its teachings in all fields as well. Islam in all fields and areas of human knowledge, including education, sociology, politics, and so on is the owner of idea and practical teachings. Man is the owner of style, expression and ideas.

It seems that education and human ethics is one of the important areas that man has created fundamental transformation in life. As

the Prophet (pbuh) has considered the purpose of his coming and his great mission conducting and completing ethic: "I was motivated to complete the moral goodness". So education is a great mission in the process of human activities. As we know, education has various elements such as teachers, students, target, and so on. In the course of education, human as a teacher and student has an obvious and fundamental role. As we know, man spends different times of his life in the center of the universe. According to Islam, childhood and adolescence is including the most important periods that man creates the fields of who and what of its own, creates fields of being familiar with the values and religious and moral education in itself and provides fundamental knowledge that its critical roots and fields form in man that takes the path of human life to the perfection or error. In the words, imams and religious scholars, childhood education is as the carved on the rock. So child's education should be formed in child such that fields of formation of character and religious identity, intellectual and cultural to be created in person.

Adolescence is the stage between childhood and puberty that is called pressure and storm periods, and man is full of energy during this period that according to religious teachings and the compliance of balance limit is the creator of healthy personality. As it was said from the continuity of human life, training of each period is the result of acquiring and learning general knowledge of previous generations as well as the training of later periods of life. Islam has a special focus on Muslim and the existence of child and adolescent with any feature and attribute is acceptable to it.

As it was seen, prophet values and respects for aborted fetuses. So the existence and value of human spirit regardless of any criterion is a point that can be inferred from the teachings of Islam. In Islam school, child and adolescent, poor and weak, black and white ... none have superiority over another and the only criterion of superiority of Islam is closeness to God and observing piety.

In addition to the philosophical ontology, it seems values, ethics and important religious principles in the field of norms is a point that in the education of child and adolescent must be considered. Islam is the religion of values. The Final of what, how and why of values is closeness to the presence of God and faith adherence to his presence in life. Love is including the fields that human by appealing it communicates with each other and finally communicates with his God. Seems link children and adolescents to parents is in the second degree of human relationship after God.

Human by creating such a link flourishes his talents and power in their fields of interest. Thereby by receiving family affection from parents, security, avoidance of psychological problems, depression, anxiety and ... can be achieved. Thereby by hankering in the way of prosperity and gaining the knowledge of God tries to spend its best moments.

Observing a set of religious common rituals and commands with faith in God and his knowledge with tolerance of hardships is achievable for human. In every religion, necessarily there are some necessary and obligatory instructions for human excellence and his access to the ideal points. Obligatory, abominable, permissible and recommended are including customs and laws

that are accepted in Islam. Child and adolescent in order to achieve success must adhere to these matters. In this case, they will be able to see its effect in his life. Among these religious customs, it can be noted to preying that follows much parenting effects in human life. Night prayers and historical evidence and religious patterns represent the importance and value of this obligation that it should be considered. Explain the nature and how religious practices is as this that in Islam all cases, obligatory, abominable, permissible and recommended have appearance and reality that compliance of both aspects of appearance and reality must be taken into consideration in Islamic Education. Sometimes at first glance, adherence attracts one of the two appearance and reality matters of the human mind and considers adhere to one as criteria for a correct and appropriate behavior of its own, while in Quran and Islam, it is emphasized on both aspects of achieving Godly success. So the criteria of customs and religious rules for Muslim child are both aspects of appearance and reality that follows considerable implications in human life.

Although much research in the form of books, theses, papers titled child and adolescent's literature in the country is conducting, but a research in the field of child and adolescent field with an Islamic approach and Quran and its Educational contents will not be considered. According to the Supreme Leader and policies of the country to carry out projects and studies in the field of indigenous and Islamic and religious sciences and in line with the identity to Islamic culture and perspective of the religious character with a scientific approach, it seems childhood and adolescence is including areas that can be fostered new ideas in new form and independent in Islamic culture.

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## STATUS AND ROLE OF OFFICIAL AND OPERATIONAL CURRICULUM IDEOLOGY IN CURRICULUM IMPLEMENTATION APPROACHES

<sup>a</sup>AHMADREZA FAZELI, <sup>b</sup>MAGHSOUD AMINKHANDAGHI, <sup>c</sup>MAHMOOD SAEEDY REZVANI, <sup>d</sup>MORTEZA KARAMI

<sup>a</sup>Ph.D. Candidate in Curriculum studies at Ferdowsi University of Mashhad, Iran.

<sup>b</sup>Corresponding Author, Associate Professor, Ferdowsi University of Mashhad, Iran.

<sup>c</sup>Associate Professor, Ferdowsi University of Mashhad, Iran.

<sup>d</sup>Associate Professor, Ferdowsi University of Mashhad, Iran.

Email: <sup>a</sup>ahmadreza.fazeli.agf@gmail.com,

<sup>b</sup>aminkhandaghi@ferdowsi.um.ac.ir,

<sup>c</sup>mahmood.saeedy.rezvani.msr@gmail.com,

<sup>d</sup>karami.morteza.as@gmail.com

**Abstract.** The faithful implementation approach that teacher enforcement, the official ideology of both starting point and the destination point and the intended curriculum as well as a slightly colored in the curriculum operating is dominant. The adaptive approach, the official and operational ideology at all stages of reforms and implementation of the curriculum from starting point to the end point in both curriculum intended and curriculum operational are present. The enactment approach, according to the role of educational practice factors such as teachers and students involved in the process of curriculum changes, operational ideology strong role in all the processes of implementing changes from the starting point to the end point as well as in curriculum intended and operational.

**Keywords:** curriculum ideology, official ideology, operational ideology, curriculum implementation approaches.

### 1 Introduction

The ideology of Greek origin and is composed of two words, ideas and logy, meaning science ideas are used (Sather, 2003). Ideology word was first coined in the eighteenth-century French philosopher Destutt de Tracy. He applied ideology in the sense of science ideas. It then served in the tradition of Marxism, Marx and Engels and their supporters in the twentieth century Gramsci and Althusser's theory of ideology. As well as some sociologists and philosophers began to conceptualize ideology that they are the most famous Emile Durkheim and Karl Mannheim noted (Van Dijk, 1998). Eisner (1994) mentions the network and matrix values as ideology. Meighan (1981) for educational ideology, a vast collection, but related, ideas and beliefs about the world which by a group of people both in behavior and in their speech becomes apparent with other people, has defined (Shkedi & Horenczyk, 1995). Eisner (1994) curriculum ideology as a system of beliefs about what schools should teach, what is their purpose and what they use as a source, has defined. Eisner (1994) ideologies curriculum is divided into two categories: operational and formal. The official ideology of the state, in fact, consistent with the educational philosophy and as the educational system is predominant approaches by policy-makers and decision-makers curriculum is predetermined. But the ideology of operations related to the context and situation of educational practice and daily classroom activities. According to Eisner operating ideology has both hidden and obvious. Some of the values, beliefs and attitudes are explicit and the implicit and hidden some of the values and beliefs and in their individual behavior does not show clear and not easily understood (Eisner, 1994).

Curriculum implementation, means the process of making a change in practice. Classification of various kinds of curriculum implementation approaches has taken place. Chu (1998), approaches to the implementation of the curriculum is divided into three categories: 1. faithfully apply the approach that this linear approach is a technical process. 2. Adaptive approach (adaptation), this approach to the complexity of the context and situation where change takes place, insists. 3. Enactment approach that the participation and involvement of teachers and students in the process of change. Ideology plays an important role in the structure of the curriculum. Ideology as an umbrella,

covering the entire curriculum development process (Littledyke, 1996). Ideologies have a major role in the curriculum (Alexander, 2005) and one of the key concepts in the field of curriculum studies are (Musgrove, 1978) as well as ideologies determine what should be taught in schools (Musgrave, 1972). So the curriculum as a project of cultural, social and political, ideological and military on the basis of beliefs, values and attitudes shaped a social group (Ferreira et al., 2008) and cannot be value-free or value-neutral act against the system (Littledyke, 1996). Changes in education in any country is absolute and necessary, and no one denies it. Fundamental change requires deep involvement with the ideologies of Curriculum (Leonardo, 2003). Given the importance of ideology, which was mentioned in the curriculum, the role of ideology in the structure of the curriculum, especially in the process of curriculum implementation is very important. The main players in practice and curriculum will be implemented in the practice environment and should be accurate and comprehensive execution environment and value system of the execution environment exist. As mentioned, there are different approaches to the implementation of the curriculum and the value system prevailing in each of the approaches of curriculum implementation role of the different forms. So the fact that, according to Giroux (1983) an urgent and immediate needs of the educational system, the ideologies and value systems (Bartolome, 2007) and there have been few studies on this topic in this study the role of ideology in a variety of approaches to curriculum implementation will be discussed. The important implications of this study may help to reduce the gap between official ideology and operational at different levels of implementation of the curriculum and the role and importance of their role in a variety of approaches to curriculum implementation. Thus, according to the ideology of the curriculum, the official ideology and the ideology of operation, the implementation of the curriculum is effective, in this study, to analyze and evaluate the various curriculum implementation approaches and clarify the role and status of official ideology and operational in each of these approaches will be discussed.

### 2 Curriculum implementation approaches and models

The curriculum changes in practice is be said curriculum implementation. Approaches and different views on the implementation of the curriculum has been propose here are the approaches to the implementation of the curriculum in terms of Chu (1998) because of the comprehensiveness and attention to all levels of curriculum implementation were discussed. Most of the assortment that has taken a variety of approaches to curriculum implementation is often ambivalent and the involvement of non-involvement change elements in the implementation of curriculum are considered, but in the classification Chu (1998) approaches curriculum implementation, attention has been paid to various aspects of curriculum implementation and in each of these approaches has pointed to a different model for curriculum implementation. Chu (1998) approaches to the implementation of the curriculum is divided into three categories:

**Faithfully approach:** In this approach change is linear and a technical process. The idea of this approach, implementing faithfully and without any change curriculum that is intended by program planners. Participants are changes in the approach to decision-makers and planners. The process of change in this approach is a top-down process and new initiatives and changes have been made up by decision-makers and planners to low levels and the regions, districts, teachers and classroom are sent. In this approach the only system of beliefs and values of decision makers and planners in the design and implementation of changes are effective and system of beliefs and values of individuals involved educational action such as teacher and student is ignored. Chu (1998) points that each of these approaches has its own curriculum implementation models.

Models faithfully implementing or planning approach designed for two purposes, first to increase the effectiveness of the delivery system innovation, second to explain and predict the progress of the issues that the anticipated steps used by the user.

**Adaptive perspective:** Consistent with the notion of the adaptive perspective is the sensitivity of post positivism that emphasizes the complexity of the context in which a change takes place. Opposed to the over specification and rigidity of implementation goals and objectives, this perspective stresses a process that permits implementation policy to be modified and revised according to the unfolding interaction of the policy with its institutional setting. Accordingly, most educational concerns are to fit a proposed innovation to the institutional setting that encourages reducing the gap between an ideal implementation goal and given local contexts. In short, the success of a new curriculum results from the consequence of trade-offs within a local context in which multiple values are embedded. Curriculum implementation in adaptive approach are two models, one model of mutual adaptation which the teacher cannot help the change process but can be that change and innovation fit with the position and texture of its own. Implementation of adaptive thinkers have accepted the assumption that a predetermined curriculum framework must be properly interpreted by users within their location. The second type of adaptive implementation models, models that would assume responsibility for the tasks change, the change facilitator models are called. According to this model, users can engage the process of change and development programs are implemented. In these models, a cooperative relationships between managers, planners, researchers, educators, teachers, parents and administrators all there. The features of this model change, cooperation between schools, professional development of teachers, the students and the community to meet the needs, gather information systematically and monitor and amend true. In these models, facilitators are trying to implement the curriculum social distance between the target and the image they give of a person trained decrease (Beirami pour et al., 2010). Teachers in these models at different levels are active because their knowledge and skills in different levels is different.

**The enactment perspective:** Argued by Snyder et al. (1992), the enactment perspective refers to intra contextually in creating meaningful educational experiences "shaped by the evolving constructs of teachers and students"(p. 404). What makes this an alternative perspective, compared to the previous two perspectives, is the way it defines the concept of "curriculum." In this perspective, different priorities for "successful" implementation can be made WHILE the teacher and students enact the curriculum. In this respect, "curriculum" is not necessarily the taken for granted notion of "a document." Nor is it captured by the a priori instrument by which researchers are able to measure the enactment of the curriculum in light of predetermined goals and objectives. The enactment perspective points out the misnomer of the term implementation due to an unnecessary application of top-down bureaucracy.

Curriculum implementation models in the enactment perspective have key differences with two models of previous approach. One is that personal and moral growth of teachers are so important that one of the specific results of their efforts curriculum, Second, planning, acceptance and approval of curriculum are ongoing activity at the same time, Third, the active participation of students in the syllabus of the most successful methods to fully guarantee. To improve the curriculum reform process, researchers from the central role of teachers in curriculum reform and the need for teachers to have a sense of ownership and engagement in the reform of the change to favored. In the late 1980s, the emergence of new approaches to curriculum reform, including school-based curriculum development and research, practice, a new path towards putting schools and teachers in the curriculum reform efforts began. In this model, teachers and curriculum development control these models were in fact a kind of attention to democracy in the curricula. This type of model is based on the strong belief that teachers and

students are the ones who can create results that have both social acceptance and self-acceptance. Absolute authority of teachers and students in the planning and implementation of the curriculum is at the heart of these models.

### 3 Operational and official ideology

Eisner (1994) mentions the network and matrix values as ideology. Eisner (1994) curriculum ideology as a system of beliefs about what schools should teach, what is their purpose and what they use as a source, has defined. The concept of curriculum ideology in the literature and by experts in the field under different titles used. Mehrmohammadi and Aminkhandaqi (2009), ideology of curriculum normative theories were applied curriculum which are known as macro theory and philosophical training to be remembered. Miller (1983), the curriculum ideologies mentioned as curriculum orientation and Schiro (2008) and Kliebard (1986) are cited as the theory of curriculum.

Eisner (1994) ideologies curriculum is divided into two categories: operational and formal. The official ideology of the state, in fact, consistent with the educational philosophy and as the educational system is predominant approaches by policy-makers and decision-makers curriculum is predetermined. But the ideology of operations related to the context and situation of educational practice and daily classroom activities. According to Eisner operating ideology has both hidden and obvious. Some of the values, beliefs and attitudes are explicit and the implicit and hidden some of the values and beliefs and in their individual behavior does not show clear and not easily understood (Eisner, 1994). Operational ideology and daily classroom curriculum that refers to educational activities, in fact, the system of beliefs, values and attitudes of teachers, students and other people involved in educational practice that can at the success or failure of every decision and action training to be effective. The official ideology from the outside and operational ideology or lived within the curriculum and the educational system is derived from and operational ideology is in fact influenced by the official ideology, but it is possible, comply or do not conform to the official ideology and the compliance and non-compliance can have a degree.

### 4 Status and role of official and operational ideology at the curriculum implementation approaches

As was mentioned, changes in the curriculum is said curriculum implementation that there are different approaches to implement changes in the curriculum. In this study three approaches faithful implementation, adoption and ratification is examined. The successful implementation of the curriculum changes with different approaches need attention to the official and operational ideology of the curriculum. In this study the role of official and operational ideology at the curriculum implementation approaches, each approach separately role and status of operational and official ideology is examined.

**Status and role of official and operational ideology at the faithfully approach:** As was mentioned, in this approach change is linear and a technical process. The idea of this approach, implementing faithfully and without any change curriculum that is intended by program planners. So based on this approach, objectives, content and curriculum evaluation and also designs and new ideas advance by program planners and decision-makers determined and communicated to the teacher and the classroom and the teacher's role is simply implementing those changes and reforms. If the official ideology to recognize as system of beliefs and values of the curricula and the educational system and operational ideology know as belief systems that dominant at the classroom and people involved educational practice, can be said that the official ideology at the faithful implementation approach, starting point and start of in curriculum and the point of destination at the end of planning and curriculum intended as well as a little more color in the implemented curriculum is dominated. As Figure 1 shows only

implemented curriculum, and it is at the end of ideology operational can be seen. That all changes to the officially by politicians and decision-makers and program planners intended to dictate curriculum and run and the system of beliefs and values their dominated and people involved administrative and operational curriculum such as teacher and student do not have any role in curriculum planning, but at the beginning and end of the curriculum implementation subconscious beliefs and values

of the people involved in educational practice are effective, and although objectives, textbooks and curriculum guides, lesson planning and decision-making by the central organization and planning are identified curriculum but in the classroom by the teachers, managers and students are implemented and behaviors that after Implementation of the curriculum in the student takes shape only arising from the curriculum intended will not be by decision-makers.

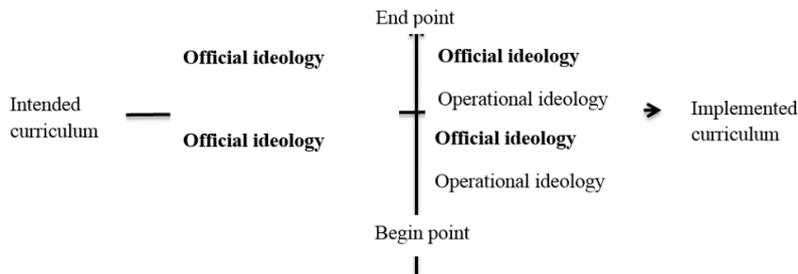


Figure 1: Status of official and operational ideology at the faithfully approach

Status and role of official and operational ideology at the adaptive approach: Consistent with the notion of the adaptive perspective is the sensitivity of post positivism that emphasizes the complexity of the context in which a change takes place. Unlike previous approaches to educational goals and objectives for dry runs were predetermined, in this approach is the emphasis on the process of change and a policy that can be changed based on interactions policies with educational contexts reviewed. In this approach change to adapt with the conditions and characteristics of the local situation and individuals opinion involved action and national policy planners and decision-makers begin and the individuals involved educational practice and decision-makers and program planners involved in the change process. In this approach, the individuals involved educational practice and program planners and decision makers there is an interaction. So the relationship between the official and operational ideology at this approach as in Figure 2 is shown, official and operational ideology at all stages of reforms and implementation of the curriculum the starting point to the

end point and the intended curriculum and implemented curriculum at present. The intended curriculum is designed from the beginning that the people involved in educational practice and curriculum implementation and the decision-makers and program planners are involved. And the participation in change and implementation of curriculum intended and curriculum implemented is likely to continue until the end. And the participation in various forms within the different levels of decision-making can occur, that can be delegated to provinces, and schools in designing and producing textbooks, curriculum guides or in school curricula filling happen. In this approach the system of beliefs and values of individuals involved educational practice or the operating ideology and system of beliefs and values of decision makers and planners of educational system or official ideology involved and based on this approach the Central Authority sole responsibility of deciding on the goals of the curriculum, textbooks and other curriculum components do not have.

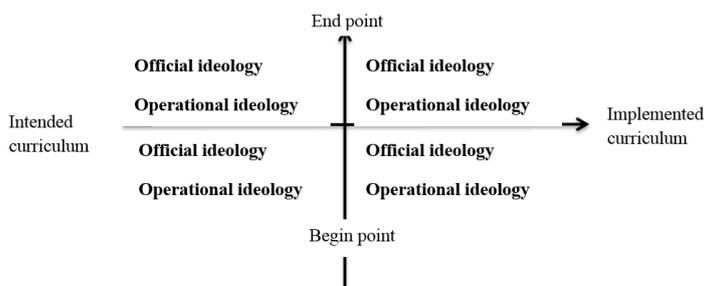


Figure 2: Status of official and operational ideology at the adaptive approach

Status of official and operational ideology at the enactment approach: This approach, an approach in a position to create meaningful educational experiences, and engage with the participation of teachers and students has been formed. This approach is based on the successful implementation of the curriculum can happen with the participation of teachers and students. The curriculum in this approach is essentially a document preset. This top-down bureaucratic approach to the implementation of the curriculum appropriateness and relevance, but the opposite is bottom-up. The relationship between the official ideology and operational approach as in Figure 3 is shown, in this case, is due the role of involved individuals in educational practice such as teachers and students in the process of curriculum changes, the operational ideology a strong role in all the processes of implementing changes from the starting point to the end point and as well as the intended curriculum and

implemented curriculum. That changed completely endogenous and the people involved in the action happens Education and Classroom, and start designing curriculum planning and implementation of the curriculum in both administrative and operational actions by the people involved such as teacher and student takes the responsibility to formulate guidelines for the curriculum and textbooks and learning resources from headquarters and taken decision makers and local districts, schools, teachers, parents and students are given and decision-makers and program planners have not a strong role here, of course, since the attitudes, beliefs and values of the people involved in educational practice and philosophy of education influenced the educational system of the country will be the dominant approach, official educational philosophy educational system either faint or official ideology can be involved in this approach.

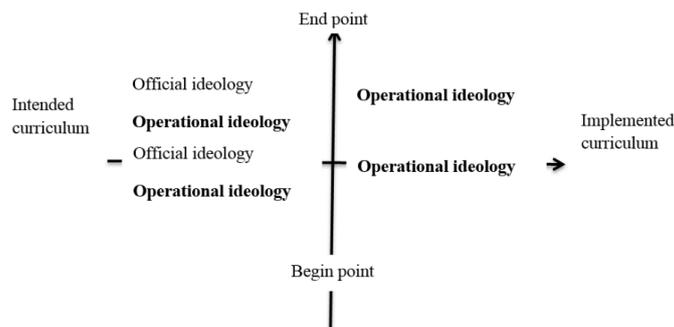


Figure 3: Status of official and operational ideology at the enactment approach

Figure 4, the overall operational status of official ideology and faithfully apply the three approaches, adaptive implementation and enforcement of the adopted curriculum. As was explained and Figure 4 show the faithful implementation approach, the official ideology and the role of the Central Authority bold Curriculum unlike the enactment implementation approach which operational ideology and the role of individuals involved in educational practice such as teachers, parents and students more pronounced. The adaptive approach to implementation of the partnership between decision-makers and central organizations and individual's involved Educational practice such as teachers and students is very important.

## 5 Conclusion

As explained, the official ideology, in fact, consistent with the educational philosophy of the educational system and the educational system are also predominant approaches by curriculum specialists and decision-makers have already been determined. But the ideology of operations related to the context and situation of educational practice and daily activities are classroom. Approaches and models of curriculum implementation, including faithfully approach that are prescription and technical models, adaptive approach to participatory approach models on the one hand due attention to policy makers and program planners and on the other hand, because according to teachers and students and other individuals involved action can be implemented in practice and is successful. And enactment approach models that have full power to teachers and students in curriculum implementation is high. The official and operational ideology role in the implementation of the curriculum models is an important factor in the success or failure of the implementation of the curriculum is considered.

Official ideology at the faithful implementation approach, starting point and start of in curriculum and the point of destination at the end of planning and curriculum intended as well as a little more color in the implemented curriculum is dominated. In the adaptive approach, official and operational ideology at all stages of reforms and implementation of the curriculum the starting point to the end point and the intended curriculum and implemented curriculum at present. In the enactment approach the operational ideology a strong role in all the processes of implementing changes from the starting point to the end point and as well as the intended curriculum and implemented curriculum. So we can say that the approach and the approach to curriculum implementation models tend to be adaptive and collaborative models and the participation of all individuals are entitled, the gap between official ideology and the operating time will be reduced and the official and operational ideology will be considered and how these approaches and models run contrary to the faithfully approach and enactment approach, the distance between official ideology and operational also increases, and one of these ideologies is neglected. Hence it is recommended that the design, development and implementation of curricula, both politicians and decision-makers and program planners, and others involved both teachers and students involved in educational practice, has not neglected the official ideology and operational ideology and distance between official ideology and operational ideology reduced and curriculum implementation accompanied with greater success. So the results of this study may help to reduce the gap between the central organization Curriculum and schools and educational context for the development and designing curricula and learning resource and also attract the attention of politicians, decision makers and headquarters to the context and environment in the implementation of the curriculum changes noted.

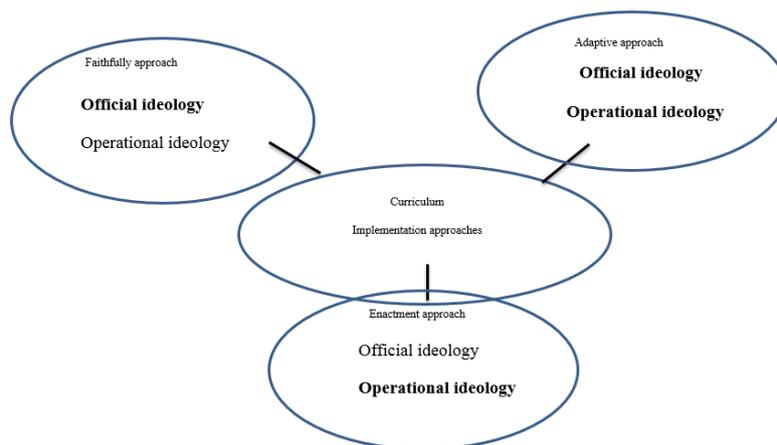


Figure 4: Status of official and operational ideology at the approaches of curriculum implementation

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## PATHOLOGY OF CITIZENSHIP IN THE CATEGORY OF ARCHITECTURE IN BEHBAHAN

<sup>a</sup>SADEGH PEYRAVI, <sup>b</sup>AZIN RAZMKHAH, <sup>c</sup>MAHROKH MOUSAVINASAB, <sup>d</sup>JALAL VASHAHI, <sup>e</sup>HADI TAHERZADEH

*Young Researchers and Elite Club, Behbahan Branch, Islamic Azad University of Behbahan, Behbahan, Khuzestan, Iran.*  
*Department of Civil Engineering, Behbahan Branch, Islamic Azad University of Behbahan, Behbahan, Khuzestan, Iran.*  
*Young Researchers and Elite Club, Behbahan Branch, Islamic Azad University of Behbahan, Behbahan, Khuzestan, Iran.*  
*Department of Architecture, Abadan Branch, Islamic Azad University of Abadan, Abadan, Khuzestan, Iran.*  
*Department of Architecture, Behbahan Branch, Islamic Azad University of Behbahan, Behbahan, Khuzestan, Iran.*

Email: <sup>a</sup>s\_p\_1366@yahoo.com, <sup>b</sup>azin.razmkhah@gmail.com, <sup>c</sup>Mahrokhe6@yahoo.com, <sup>d</sup>J.Vashahi@iaubadan.ac.ir, <sup>e</sup>Hadi.taherzadeh@yahoo.com

**Abstract:** This study pathology of citizenship in the category Architecture Behbahan in 1395 was carried out. The aim of this study was a - applied manner. Thus, in order to prove hypotheses, the survey involved people (those living in Behbahan) is used, the methodology is correlation. Using a sample of 384 subjects was selected and sampling. Data collection, using a standard questionnaire was used. Cronbach's alpha for reliability and for its validity and content validity were used in the analysis, the results are valid and reliable indicator of the questionnaire. In this study, the hypothesis to answer t techniques was used. The results showed that satisfaction of citizens' rights is less than average, that the unfavorable situation and bad (the average response is the lower 3).

**Keywords:** Pathology, civil rights, architecture, Behbahan.

### 1 Introduction

Citizenship is derived from the city. Citizenship is the advanced farm of citizen's. According to some experts, when city dwellers who respect each other's rights and their responsibilities towards the citizens of the city and their communities have improved. Before it citizens of this city were studied (Balan, 2010). In the social sphere but then your concepts of citizenships and country's state.

Today, many think about global citizenship. Citizenship today has various meanings and applications. Citizenship refers to a person's daily life and business activities of community and social activities are also in general set of behaviors and actions of individuals. Dynamic citizen or citizen activities actually comes from this attitude. Citizenship from the perspective of a broad set of individual and social activities. Although the individual, but their resultant activities that with help to improve the social situation (Katz, 2008).

Citizen is the wide range of social activities and individual activities, although this activities are individual but contribute to the advancement of the socially although the economic contributions, public service, volunteer activities and social activities that are effective in improving the lives of citizen, in addition to the rights of citizenship in the bigger picture of social and ethical behavior. Citizen education unofficially at home or work or workshops on carrialm separately, in fact. It teaches people how to take responsibility. The basis of the training pattern raise a good citizen is not (Petoft, 2015).

But also teaches them how their decisions according to their responsibilities toward society (and their individual their live.) (and affected their individual live. Citizenship education is one of the branches of citizenship that according to the rapid developments in technology and contemporary political and social concerns including planners and they were the education policy. Makers of the world. In developed countries the concept of citizenship from childhood to adolescence is fought and the government provides the necessary framing to the teachers and parents (Petoft, 2015).

In fact the citizenship rights was the set of which people are said to have the validity of their citizenship status, so the definition of civil rights is a fairly broad concept that includes individual civil and political rights and economic, social and that set the relationship between people and government and civil institutions and to set out the rights and obligations that is the split of political rights within the country's constitutions and to respect and protect the human rights of individuals and socially of large (Petoft, 2016).

In fact, the general applicability of civil rights, the total points for citizens, as well as a comprehensive set of rules that govern their position in the society (Monfared, 2010).

The holder of the rights of the citizens refers to the individuals who lives on the society beyond the concept of citizenship without regard to hierarchy as distend situation for people and there are special conditions for the recognitions and the rulers and the rule specifically against and based on multilateral relationship between state, society and the citizens and the existence of a moral position to activity partiapate. In other words rights and privileges as citizens of a country with respect to the two principles of human dingily and non-discrimination for provide citizens backgrounds and development of individual and social personality of the citizen that in the legal system of a country is granted as citizenship rights. The ultimate goal of establishing a citizenship is happiness for all life stages obviously the number of rights that are innate, for example the rights to life, freedom of rights that have always been present in humans and not exclusive to yesterday and today, but things like workers' rights and employers or trading rights and rights to the education, such matters are contractual or common law that are various according to the requirement of day in any time period but it is important to note that according to observance and enforcement of rights that cannot distinguish the difference between them and all rights should be respect equally human society in the course of their change have been forced to minimum wage. As the board accepted the demands of the citizenships and every society due to their efforts to this content the more and quantitative and quantitative expansion in a favorable spot, the emergence of the city dates been to the earliest human civilizations humans create amazing changes in culture and by factors such as agriculture revolution, promote treacle and commerce the invention of writing and political factors administrative and military and political allow to provide the development of the city, the industry revolution also as a strong stimulant with the administrative institutions of social, economic political and cultural not only changed the city's three-dimensional space lout various changes and modifications it will be in the areas of social life. The destruction of residential neighborhoods space by urban plans change more and undermine ethnic solidarity neighborhoods and city had a harmful impact on social relations. Therefore the study of the city and the consequence of changes in the social system and personality it helps to the various in the society. Can also fer-hle ground for measures and procedures to organize and the social life because cities are a valuable actual treasures that represent the history of social community each of this elements and spaces is a rational part of the social features that with the review and identification of unknown dimensions that can winning the territorial social history. According to a forecasts to the 2015 years the number of metropolises in developing countries will be a 486 city number in while 1966 this umber was only 54 city. The cities are largely centers that a high percent of the population have in that happen the massive consumption of resource. From about 1950 years for various reasons cities in the third worked have had unprecedented grout in developing countries each year 50 million added to the urban population (Monfared, 2010).

Demands that its adherents housing and municipal services arises. With urbanization and migration increasing urban population in different areas and login technology, regulations

and rules and the great human Iranian community to maintain order and concept such as citizenship and civil right were met and experts and scholars from different fields of science began to study the concepts of the city. Although the citizens have a long history but it is still unclear and problem at (Meenu, 2007).

Juny argued that citizenship rights is a serious of public communication between people that they want the state of nature that is the case for a speculated life there meanly away from the dirt-protecting to avoid the animal life (Meenu, 2007).

Citizenship is a kind of social contract that the main objective is to promote the welfare and security at the community Lakeland concerns that members of a society must necessarily how to behave to reach this. In fact trends citizenship or capabilities city and its objectives are not necessarily in relation to the expectations of community members of certain communities and nation understood because they have the knowledge and attitudes skills and values along with participation or transfer of mass civil although created to prepare citizens to know the political and social duty but friends citizenship subjected to the citizenship education and community rules to in calculate the values of citizenship and is the rule of the law (Petoft, 2013).

Rule friends three discussion the nature the political state and the nature of the relationship between the individual and society and citizen linked. The history of this discussion can be found in photo's republic and in explaining to prepare the young Athenian found the medal for social life according to Plato's ideal orientation, citizenship depends on education that the primary of individual rights against governments and the role of constitutionalism in the governance stability (Petoft, 2013).

According to Aristofk friends citizenship ude and evaluate and consultation and under the terms of the entry rules and taking into account the interest of others (Petoft, 2013).

Citizenship is one of the concepts that recently due to H'S plentiful in various fields and particularly focuses on justice and equality and had a special place in the political and legal theories (Petoft, 2013).

### 1.1 Review of the literature in the field of research

Malihe sheiany (1381) the sociological analysis of citizenship status in lorestan city that was conducted through the survey method has concluded that the rights and duties are the main elements constitution of the citizenship so there are people in very community empowerment through different relation which are a prerequisite for the realization of citizenship.

## 2 Research methodology

This study applied research is in terms of objective and as the method of doing, it is placed among the researches of the survey- Correlation. Because in the current study, the researcher has used the inferential statistics method and structural equations modeling to examine the impact of variables and their relationships. This research also examines the data related to a period of time, so this research belongs to a special time (Khaki, 2006).

The Statistical population of this research comprises people who living in Behbahan. Cochran's formula is used to determine sample size, given that the variables of research are quantitative and average able and size of population also is unlimited. In this formula, considering that the standard deviation of the society ( $\sigma$ ) is unknown; Accordingly the Cochran unlimited formula, the number of review sample 483 was determined. The sampling method in this study has been selected by available. In order to

gather the required data, we used questionnaire. Items of the questionnaire through the review of previous studies were extracted and by referring to the professors of Group, its reliability was confirmed in terms of content. To measure the reliability of the questionnaire, Cronbach's alpha coefficient was used. The first part, Questions is about the demography, the second part is related to rights of citizenship and is used the Keshavarz's questionnaires. (Momeni, 2011).

### 2.1 Reliability and Validity

Validity means that, how can we be sure that the questions in instruments measuring, the same thing it should measure, is measured. To ensure the validity of the questionnaire in this research, we used content validity, structural validity. Kaiser-Meyer-Olkin determines whether the variance of the variables of the research is under the influence of common variance and some of the secret and fundamental factors or not. This index is in a range from zero to one. If the value of the index is close to one, the considering data are suitable for factor analysis; And otherwise, less than 0.5 are not suitable (Rezvani et al, 2015).

**Bartlett's test:** This test examines when the correlation matrix, in terms of mathematical is the same and unit matrix. The correlation matrix has two modes: The first mode is the time that the matrix of correlations between variables is the same and unit matrix, otherwise the variables don't have significant relationship together and thus the possibility of identifying the factors new, based on, there is no correlation between variables with each other. The second mode when the correlation matrix between the variables is not the same and unit matrix, in this case, there is a significant relationship between the variables. And therefore, there is possibility of identifying and definition new factors on the basis of correlation between variables. If a significant Bartlett's test is less than 5%, it is appropriate factor, because of the known hypothesis is rejected the correlation matrix (Trujillo, 2009).

The meaning of reliability is that, if we give the measuring tool at the distance of short time in several times and to single group of people, the results are close together. To measure the reliability, we use an index that called the "coefficient of reliability". Its size usually varies between zero and one. The reliability of coefficient of "zero" represents unreliability and reliability coefficient of "one" represents the perfect reliability. The main purpose of using the Cronbach's alpha test is the evaluation of the internal consistency of items in a scale, which prepare through the process of making index (Rezvani et al, 2015).

In this research, to evaluate the reliability of the questionnaire is used Cronbach's alpha hat its results are shown in the table below. Usually the alpha less than 0.6 is weak reliability, 0.6 to 0.8 acceptable and higher from 0.8 indicates high reliability. It is obvious that whatever number is closer to one, is better. As mentioned in this research, after collecting data from the prototype, the data were entered into the software of Spss2 and Cronbach's alpha coefficient calculated which the intended coefficient 95.0 was determined that is indicative of the high reliability the measurement tool. The Cronbach's alphas of each of the variables are presented in the following table separately (Rezvani et al, 2015).

In this research, in order to assess structural validity and reliability of the questionnaire after developing the questionnaire, the researcher put it in supervisor and consulting advisor; and after receiving the comments, corrective actions were taken. For evaluation of the structural validity of the questionnaire and confirm of the considered factors, the confirmatory analysis method was used that values of this index is brought in the table 1.

Table 1. Results of testing the validity and reliability

variable	Cronbach's alpha	kmo	sig	Eigenvalues	variance explained
Citizenship rights	0.95	0.96	0.00	9.45	56

### 3 Data analysis method

In this research, for the research hypotheses employed a t-test, conceptual model fitting, structural equations modeling. There is different approach in relation to structural equations modeling. This means that the structural equations modeling can be used based on different statistical methods, appropriate to the type of variables and the characteristics of the statistical sample. Structural equation modeling, a particular scientific structure is invisible between a set of structures. A structural equation model consists of two components: a structural model which defines the scientific structure between the hidden variables and a measurement model that defines the relationship between the hidden and observed variables. In the path analysis is not available the model of measurement and just include the scientific structure. Path analysis can be done only on the observed variables. If it is needed, with the assumption that latent variables can be averaged from the observed variables, and we can express in a form of observed variables. One of the statistical methods in the field is Partial least squares method. The software that use structural equation based on the statistical

methods than the existence of conditions such as co-linearity of the independent variables, unmoral data and be small of the sample is compatible. In the present study has been used the Smart PLS software that in the context of structural equations modeling based on partial least squares method is useful software. The estimation method of PLS, determine the coefficients in such a way that the resulting model, have most power of interpretation of and explanation. This means that the model can predict the dependent variable with the highest accuracy (Hayes, 2013).

### 4 Research findings

Statistical information is presented in the relation to the review sample in the Table 2. As the data show the most respondents are from old texture, female and between the ages 19 to 25 years, diploma or under diploma with inhabitancy or more than 21 years in the region. More respondents know the rights of citizenship synonymous with social welfare. General information is given in Table 2.

Table 2. Demographic information

Age						kind of neighborhood			sex	
46<	41-46	36-40	31-35	26-30	19-25	18>	New	Old	Female	Man
15	13	11	13	21	24	3	26	64	54	46
Education						staying time				
Doctors	M.A	Bachelor	Associate Degree	Diploma or less	20<	16-29	11-15	6-10	1-5	
1	3	30	26	40	40	17	19	15	9	
Attitude to civil rights										
freedom	Right to Life	Urban Partnership	legal system	Welfare	Social belonging	National identity				
1	1	8	6	69	13	2				

The questionnaire was distributed in the following places: Par, Seyed alshohada (Abkhasiha), Kargah, Seyeda, Godchahak, Molayan, Pahlavanan, Shajfazi, LabAb, GodKalo (Javanmardan), GodBaghal.

#### 4.1 Inferential analysis of research findings

##### Results of confirmatory factor analysis of two times (Measurement models)

Confirmatory factor analysis is one of the oldest statistical methods that use to examine the relationship between latent variables (obtained factors) and the observed variables (Questions) and represents the measurement of model. Table 4 shows the index of explained average and variance, Cronbach's alpha and combinational reliability and the average of response. The value of the index of Cronbach's alpha is from 1 to 0. The value of this index should not be less than 0.6. The combinational reliability values between 1 and 0 and is an alternative to Cronbach's alpha. In addition to the structural validity that used to check out the importance of selected markers also use to measure of constructs. Also in the present study the diagnostic validity is desired; this means that any structural markers provide an appropriate differentiation in terms of measuring

relative to other structures of model ultimately. In simple terms, any markers measure only their structures and their combination in such a way which all structures are well separated from each other. By the index of average of the variance extracted, it was found that all the studied structures, their average of the variance extracted are higher than 0.5. In this research to evaluate the authenticity structural model is used R2. According to China, R2 which only dealt with endogenous variables and is representative of the amount of variance of the endogenous latent variables; with bigger amounts of 0.67 significant, between 0.670 to 0.33 averages and less than 0.19 is considered to be Weak. Also, if in a specific model which is a combination of the endogenous latent variables with only one or two output hidden variable, the amount of R2 is an acceptable of average (Trujillo, 2009).

To check the quality or validity of the model use the cross-validation this contains index of the cv-communality and the index of cv-redundancy. The index of communality, measure the quality of measurement model of each block. The index of redundancy that is also called Q2 Stone – glycere; considering the measurement model, measures the quality of structural model for each endogenous block. Positive amounts of this index indicate the appropriate and acceptable quality of measurement model and structure. The Indices of the model fitting are presented in Table 3.

Table 3. Indicators of measurement and structural model

Redundancy	R <sup>2</sup>	Communality	Cronbach's alpha	CR	AVE	Latent Variables
0.14	0.46	0.61	0.95	0.82	0.61	Citizenship rights
Accept= >0.16	53%	R <sup>2</sup> = 0.46		(GOF)		
		Communality= 0.61				

The overall fit index of the model (GOF), if the index be higher than 0.16 it indicates that the used model is a good fit. This means that data collected supports the conceptual model of research and given model is closer to reality and its value is 0.53 and determines that this model is a good fit.

## 5 Discussion and conclusion

We use a parametric method for the assessment of research variables. Now, we can discuss the analysis of variables in the current state average. Because mean value of a society can be compared with the number so we are used one-sample t-test. If at all tests the significance level be greater than the level of error 0.05, H0 confirms; and if the level of error be less than 0.05, H1

confirms. In the table below, we are deemed inappropriate amounts of 3 and smaller, since according to Tavakoli, Darestani and Shahbaz Moradi (2009), it is less than average. Hence:

H0 = Considering variable do not have damage

H1= Considering variable have damage

At Table 4 is given amounts of assumptions the tests to assess the damages of variables. According to the Likert 5 in each for constituent questions of the research variables should examine the resulting amount of respondents' views, until it be clear whether the mean of their responses on average with the amount of 3 (the middle number of Likert scale) has difference or not.

Table 4. The values of the variables tested

Variable	Mean	S.D	sig	T	Status
The satisfaction of citizens' rights	2.24	0.69	0.00	64.17	Damage

As can be seen in Table 5, the satisfactions of the rights of citizenship have been evaluated less than average; that is the

unfavorable situation. To understand more, we also examine the details of variables that have damage.

Table 5. The values of the index test

Index	Mean	S.D	sig	T	Status
Create streets, alleys and squares, parks and public gardens, water ducts, passages and a proposal to amend the city map ...	2.93	1.12	0.001	38.68	Damage
Cleaning and maintenance and paving of streets and public places and channels surface water and waste water level	1.88	1.21	0.001	35.07	Damage
Cooperation in health care and control of the market by the relevant organs	2.83	1.11	0.001	37.73	Damage
Avoid being forced begging and begging to work	2.73	1.21	0.001	3.32	Damage
Preservation of movable and immovable property	2.73	1.15	0.001	35.04	Damage
Create a mortuary facilities and sanitary processing plants	3.29	1.18	0.001	54.98	Good
Adjust the balance sheet and income and expenditure of the municipality	2.80	1.26	0.001	32.30	Damage
Transactions under the existing legislation Municipality	2.79	1.27	0.001	50.32	Damage
Compare the supervision of weights in the city	2.61	1.24	0.001	31.04	Damage
Statistics on births and deaths for the urban population and urban plans	2.72	1.92	0.001	33.64	Damage
Prevent common diseases of epidemic animal and human health in collaboration with institutions such as rabies in the disposal and treatment	3.89	1.24	0.001	33.93	Damage
Trade regulations, business licenses	2.84	1.33	0.001	31.62	Damage
Construction Licensing and prevent unauthorized installations	2.93	1.13	0.001	38.12	Damage
Construction harassment fix and avoid crossing barrier	1.72	1.21	0.001	35.84	Damage
Collection of duties under the provisions of Act	2.86	1.24	0.001	34.17	Damage
Specific regulations for designations urban areas	2.61	1.58	0.001	24.34	Damage
Asphalt streets and sidewalks	1.51	1.51	0.001	24.15	Damage
Avoid polluting vehicles and smoke, along with other organizations	2.35	1.40	0.001	24.71	Damage

As seen in Table 5, all of the indicators (except for the establishment of the mortuary facilities and sanitary slaughterhouse is lower than the mean value and show unfavorable situation of this variable in the city. the research aimed with Pathology of citizenship in the category of Architecture (Case Study: City of Behbahan) that conducted in 2016. According to the results of this research, Results showed that the situation is unsatisfactory and is evaluated less than the average. To improve this situation suggests that:

For example, the following description of the proposed work which can be in most human of societies considered and performing the urban management in the field of explaining, promoting and institutionalizing" culture and citizenship rights" is offered:

- Serious scientific and practical efforts of the urban management for promoting the concepts and messages of culture and the rights of citizenship derived from the Holy Quran and the Prophet's (PBUH) holy Imams.
- serious effort of urban management to identify the needs, problems and issues of citizenship and based on it, the preparation, codification and Approval of vision and work plan and prioritization of the work programs in short-term, medium-term and long-term of codified for targeted activity and lead to

tangible results and perceptible to solve the problems and provide appropriate and timely services to citizens.

- Providing facilities for the participation of citizens in the management of local affairs through revival of neighborhoods and central neighborhoods and effort to create a sense worldly belongings and a feeling of citizenship among all the citizens, with respect to the diversity of cultures and ethnicities with the approach of the increasing of the of cohesion, control, responsibility, empathy and social assistance of the citizens.
- By reminding that the Supreme Leader said in the year in which it is adorned with the "the year of economy and culture with the national determination and the management of jihadi" And about its importance has stated: the culture is an important order and economy is an important issue and now cultural and social issues are most important our urban issues, it is necessary that management of local Provincial have effort with a serious determination the management of jihadi to promote qualitative and quantitative of the performance of own the social and cultural aspects of urban management through structural measures and reform of the organizational structure of municipalities and strengthening of the section of the social and cultural municipalities and according to the new and diverse of the urban communities and to improve quality of life and the public participation in urban development, further municipalities not only as a service entity but also pay attention to issues of the

cities at a beyond approach of social and cultural institution. So it is necessary, the municipalities shifted from the hardware and physical approach to social and cultural approach and for this purpose, Islamic councils of city as the perspective document and development program of the 5-year formulate and approve for municipalities, on the issues of cultural and social must make a decision about the perspective document and short-term, medium-term and long term programs.

- To achieve a sustainable development; Islamic councils should be diligent, committed that in stage of approval, monitoring and implementation of the budget of local management, local managers bound to prepare and compile the social, cultural, security, law enforcement, judicial, environmental, cultural heritage, health attachments and in performing the civil projects; (Supreme Leader said special emphasis to the officials of city in the attachment of the cultural and artistic projects) and we accept that performing the civil projects without the mentioned attachments, something considered as useless and even contrary to the public of interests.
- serious scientific and practical effort of urban management in order to provide the infrastructure training of citizenship in the field of collecting and separating waste source, management of residue and produce wealth of this dirty gold.
- Effort and seriousness of urban management in order to provide the infrastructure training of citizenship in the areas of promoting and implement a culture of respect for the environment, reduction of the environmental pollution and promotion of environmental literacy of citizens with the goal of promoting health and social well-being of citizens and maintain and to protect the environment.
- serious scientific and practical effort of urban management to promote the living in apartment with the approach of promoting the integration, control, training, responsibility, empathy and social assistance to of the citizens.
- The urban management in order to provide the training infrastructure of citizens in the areas of promoting healthy culture of traffic and pedestrians in the pathways and the streets and a culture of respect for traffic regulations(traffic management and culture of citizenship in traffic area ) have more serious effort.
- An appropriate infrastructure and promoting a culture of life as afoot without the use of private cars, and replacement bike, walking instead of private cars in urban traffic with the approach of organizing the traffic, environmental protection, vitality and health of citizens.
- An appropriate infrastructure reforming and strengthen the structure public transport within the city in order to enable the use of easy and inexpensive of the all citizens and promoting the use of public transport by of the citizens of public transport fleet instead of using private cars in urban traffic with the approach of organizing the traffic, environmental protection, vitality and health of citizens.
- Holding workshops and scientific meetings at the local level and housing complexes with the participation of the citizens and experts in the field of social and cultural experts with the approach of face to face training of culture and citizenship rights.
- The effort to build the standard sidewalks for safe passage and risky private citizens without the intervention of cars, bikes and motorcycles. Attention to the human element in urban planning is a prerequisite for all managerial approaches.
- Serious scientific and practical effort of social, cultural urban management to reduce of areas for abusing variety of drugs with the approach improving security and public health.
- Making suitable the buildings, projects, environment and urban spaces for the enjoyment and traffic safe, convenient and easy for the elderly, the disabled, veterans, blind with the aim of promoting human dignity.
- Serious scientific and practical effort of urban management for the culture of reforming consumption patterns and energy management: electricity, gas, water particularly by of the citizens and municipalities.
- Taking steps towards increasing capita religious spaces by looking at the lawgiver in all neighborhoods and with the

approach promoting religious and social identity and as one of the essential elements for the prevention and control of social problems.

- Taking steps towards increasing capita of parks, green spaces and for sport, place for child's games by looking at the lawgiver to all localities and with the approach of health promotion and social vitality as one of the essential elements for the prevention and control of social problems.
- Organizing the suburbanization and informal settlements with the approach of the prevention of social and cultural damages and the dignity of the technical principles, health and urbanism of cities.
- Organizing and removing blockages, disturbance, seeming unbeautiful of public appearance arising from social, economic, development, construction activities and ... in urban areas.
- Organizing the urban landscape with emphasis on the observance and enforcement of noble architecture of Islamic and Iranian.
- Serious scientific and practical effort of urban management for finding the root, combating and elimination of factors affecting the incidence of beggary and colportage with a view to preventing creation of false jobs, misuse of public opinion and prevent the social harm associated with the topic.
- interaction with executive agencies and effective institutions specialized in the production and promoting the popular culture including education , broadcasting, members of the media, the bar association and ... to provide the public trainings related to culture and citizenship rights with the approach preventing and reducing the social damages and enhance the morale of commitment and responsibility of the citizens.
- Serious scientific and practical effort of urban management at interaction with executive agencies and academic centers trustee and promoting the cultural issues, the culture of health (motility, nutrition, and ...) and security for public trainings related to culture and citizenship rights with the approach of preventing and reducing the social damages, sanitary, and raise the morale of the commitment and responsibility of the citizens.
- Development and creating the components of social health (parks, hiking, suitable space of urban) with the aim of reducing and preventing the diseases such as obesity, diabetes, cancer, depression, etc., appropriate and immunization of the public spaces and parks for possibility using by women and children and ... in the field of health and exercise in order to reduce disease, depression, obesity and so on.
- Belief and serious scientific and practical effort of urban management to strengthen the element of social control for socialization of the process control and combating with the social damages through interaction with the effective of reference group, religious institutions and NGOs for utilization of capacities and communication for NGOs to provide public trainings related to the environment, culture and citizenship rights with the approach of prevention and reduction of the social damages (Theft, drug addiction, violence, divorce, etc.) and increasing the morale of commitment and responsibility of citizens.
- Organizing, guidance and management of costs of the religious ceremonies, mourning of dead, Valimeh, and the cost of the pilgrimage and ... towards the carry out of charity work and the public utility(build of schools, clinics, preparation of dowry, provide the costs of patients treatment and incurable, women without caretaker and breadwinners and heads of household, the dignity of the elderly, the disabled, helping to the destitute, entrepreneurship, Production and employment and ...) with collaboration of NGOs and through charitable institutions, social and culturally relevant.
- Serious scientific and practical effort of urban management to strengthen and improve the local community by citizens and provide the necessary fields for enjoyment of the citizens of civil rights, social, political.
- Attempt to institutionalize citizenship rights in the matter of construction in accordance with the rule and no loss through careful monitoring on the building construction.
- Belief and serious scientific and practical effort of urban management to monitor the protection of public programs and city services, avoiding the land use change and the uncontrolled

sale and law of density, non-use change and selling parking, monitor on the implementation and protection of comprehensive schemes and legislative acts of group of then article 5 on the topic of Urban Development, supervision on the allowed manufacturing and with and quality based on the triple principles of urbanism, , technical and sanitary and preventing the illegal construction and without any regard to the three above-mentioned of criteria; that all of this cases should be considered as one of the most important issues and demands of citizens' rights.

- Creating a healthy city and the creation of “active and informed citizens”. A “healthy city” is a city in which a continuous of social, physical and environmental conditions are developing and improving and with optimal use of existing resources and facilities provides the environment that because of this and also supporting each other and collaboration in all matters, are trying to get their lives to a favorable level.
- Encourage citizen to participation and social supervision aimed at reducing and preventing the social damages.
- Qualitative and quantitative development of generate of the public toilets as the urgent need with the aim improve mental health of the citizens and the general public.
- Introduce and promote of the making pattern of citizens' behavior with election of specimen citizen cultural, hygienic.
- Formation and activity-based program of committee for culture and citizenship rights in the municipalities.
- Serious scientific and practical effort of urban management in order to fulfill the general policies of principle of the resistance economy and avoidance of unnecessary costs and resources management of the limited financial.
- Discourses, resuscitation, training and promoting the Iranian Islamic culture, correct use of individual, social, organizational and combating promoting a culture of consumerism.
- The emphasis on effectiveness and efficiency of construction projects and lack impose additional costs on citizens' material and spiritual development projects and ongoing costs of local management.
- Serious scientific and practical effort of urban management for preserve the identity and historical context and providing the necessary fields of tourism development in historical cities as a generator motor of the production of wealth and added value of local communities and the protection of humans 'role in the statue of city and respect for the sanctity of cultural elements in urban living as one of the components of the social bond.

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## THE INVESTIGATION OF INTERMEDIARY EFFECT OF STRATEGIC HUMAN RESOURCE MANAGEMENT ON RELATION BETWEEN KNOWLEDGE MANAGEMENT AND PERFORMANCE OF ARAS FREE TRADE ZONE COMPANIES

\*SOLEIMAN IRANZADEH

*<sup>a</sup>Department of Management, College of Management, Tabriz branch, Islamic Azad University, Tabriz, Iran*

*Email: <sup>a</sup>iran zadeh@aiut.ac.ir*

**Abstract.** The aim of this study is to investigate the intermediary effect of strategic human resource management on the relation between knowledge management and performance of companies in Aras free-trade zone. This research is applicable in terms of aim, descriptive and correlated in terms of data gathering and quantitative in terms of the type of the gathered data. Statistical population of this study were managers of 310 companies in Aras free-trade zone. As it was not possible to measure the number of managers at all levels, the statistical population of the study was considered as indefinite and the statistical sample was considered 384 managers in number. Results derived from findings of this research show that strategic human resource management influence the relation between knowledge management and performance.

**Keywords:** strategic human resource management, knowledge management, performance, Aras free-trade zone

### 1 Introduction

Nowadays all companies are working in a dynamic and competitive environment where competition is increasingly getting more serious and the traditional sources of competition can neither ensure the institutions' survival nor meet their accommodation with customers' needs. There are so many points which highlight the necessity of paying attention to strategic human resource management, especially the ability to provide companies with competitive and economic advantages (Sanchez, 2015). Barney (1991) points out that missing resources can produce a sustainable competitive advantage. This way, knowledge and human capital are considered as valuable properties for organizations, and efficient management of them makes it possible to use the employees' proficiency and knowledge to achieve the organizational objectives, to meet peripheral needs and also to improve organizational performance. While some studies have mentioned that knowledge management increases the organizational performance (Hsiao, Chen and Chang, 2001; Lopez-Nicolas and Mero'no-Cerdan, 2011; Rasola, Bosilic and Voksik), some others argue that it is only human resource management that is effective in improving that factor (Chen & Huang, 2009; Youndt, Snell, Dean and Lepak, 1996). Moreover, some studies show that knowledge management and human resource management are closely related to each other (Theriou & Chatzoglou, 2008; Wang, Chiang & Tung, 2012). Most of these studies are selected to analyze the intermediary effect of knowledge management on the relation between human resource management and the organizational performance (Jackson, Schuler and Jiang, 2014). It is interesting that few studies have mentioned the reverse relationship between these concepts. It may be expected that a probably powerful interaction between knowledge management and human resource management be taken into consideration (Liao, 2011). Therefore, the main purpose of this is to introduce a different viewpoint about the role of human resource management and to react to recent attempts to create the other causal models in order to analyze the arousing or intermediary role of human resource management regarding the relation between knowledge management and organizational performance (Jackson et al, 2014; Jiang et al, 2013). This new viewpoint is so important that it can determine whether the given human resource management systems are able to turn the organization's needs and approaches into a plan of activities related to strategic human resources or not. These activities can improve the employees' behaviors and as a result, the organization will come up with better consequences (Jiang et al, 2013). So we examine the intermediary effects of the activities related to a given strategic performance in domains including accessibility, education, participation, performance evaluation

and reward (Chen & Huang, 2009; Huslid, 1995) in order to realize the need for experimental studies to analyze human resource management systems, like exciting processes in improving the organizational approaches and objectives (Jiang et al, 2013). It is expected that these activities can serve as a medium for the relation between knowledge management which has been measured using formulation and customization approaches, and organizational performance. These relations will be examined using the structural equation modeling in a sample of 191 Spanish industrial organizations. The positive and specific effect of this study can be summarized in three parts. First it expands the limited studies which have been conducted to specify a direction towards the approaches of human resource management. Furthermore, as a mediator of knowledge management for the organization it makes a connection between its objectives and its better performance (Jiang et al, 2013; Wang et al, 2012). Second, it supports the theory which says knowledge management of employees is necessary to maximize the organizational performance through activities related to strategic human resource (Chuang et al, 2013; Liao, 2011). Finally, it contributes to provide explanations about the relation between the given approaches of knowledge management and the qualified performance in the operation systems from a point of view which leads to a better organizational performance (Chen & Haung, 2009).

### 2. Research method

#### 2.1 Research hypotheses

1. Knowledge management has a positive and meaningful effect on organizational performance.
2. Knowledge management has a positive and meaningful effect on strategic human resource management.
3. Strategic human resource management has a positive and meaningful effect on organizational performance.
4. Strategic human resource management has a positive and meaningful effect on the relation between knowledge management and organizational performance.

#### 2.2 Research design

The present study is an applicable research in terms of aim, a descriptive and survey research in terms of data gathering methods. Library survey has been done to collect data.

The statistical population is consisted of the managers of Aras free-trade zone companies. There were 310 companies in this study which were operating in different fields in Aras free-trade zone. As it was not possible to count all the managers who took part in this study, and also there was no list of their names, we had no other choice but to consider the statistical population as indefinite. According the Cochran formula for the indefinite population, 384 chief operating officers, middle managers and chief administrative officers were chosen for this research. We contacted with the managers of more than 250 companies via E-mail, phone and social networks. As the result 367 managers among them accepted to take part in the study and respond to the questions. The questionnaire used for this purpose was based on some other similar questionnaires. Its validity was approved by a team of researchers and professors in the Azad university of Tabriz.

#### 2.3 Statistical analysis

Structural equation model or the multivariate analysis with latent variables is one of the promising methods in causal relations

among variables. This statistical method refers to some general models including: confirmatory factor analysis, simultaneous equation models, path analysis, multiple regression, analysis of variance and other statistical methods. Accordingly, the structural equation model is a comprehensive statistical approach for testing hypotheses regarding the relations between manifest and latent variables. The primary focus is on the latent variables which are defined by commensurable indicators and manifest variables (Sheykh Esmā'īeli, 2000).

The structural equation modelling has been used to specify the effects of knowledge management on strategic human resource management and organizational performance. This method examines the theoretical relations among the given structural

conditions and makes it possible to estimate causal relations among latent variables and also among manifest variables. The main raised question is that if this measuring model is an adequate one? To answer this question, the  $X^2$  statistics and other factors of model fitness have to be examined using the structural equation model and path analysis by applying AMOS software. Using the planned questionnaire results, the knowledge management variables, strategic human resource management and the organizational performance were applied as the latent variables. Moreover, error in variables which represents all effective factors other than latent variables were also taken into consideration. In this model, variables are called as follows (table 1):

Table 1: variables of the research

The Error variable	The variable	Its name in the model
-	Knowledge management	<b>KM</b>
e13	Strategic human resource management	<b>SM</b>
e14	Firm performance	<b>FP</b>

We also consider the variables which using them knowledge management, strategic human resource management and firm performance can be specified. We also attribute an Error

measurement variable to each variable which are as follows in our model (table 2):

Table 2: an Error measurement variable to each variable

The Error variable	The Variable	Its name in the model
e5	schooling	<b>schooling</b>
e4	Knowledge creation	<b>creation</b>
e3	Sharing knowledge	<b>sharing</b>
e2	Using knowledge	<b>using</b>
e1	Saving knowledge	<b>saving</b>
e6	Human resource provision	<b>Human resources</b>
e7	Education	<b>Education</b>
e8	Performance evaluation	<b>Performance evaluation</b>
e9	Service bonus	<b>service bonuses</b>
e10	Employee participation	<b>Employee participation</b>
e11	Efficacy	<b>Efficiency</b>
e12	Effectiveness	<b>Effectiveness</b>

### 3. Results

We first need to determine constant and free parameters to be able to estimate the model. Constant parameters in a structural equation model often include weighted regression of the Error variables. In addition, for any latent variable, one of the weighted regressions has been considered as a constant value which equals to 1. This is a reference to determine the variable and also to solve the problem that latent variables do not have any indicator.

As the investigation of structural relations among latent variables is logical and meaningful when latent structure measurement is acceptable based on practical factors, we will investigate the whole model test after making sure that the

present measurement model in the modified structural equation is acceptable.

#### 3.1 Confirming the model

In this study, we used three types of indices to ensure that the model is acceptable. Absolute fit indices (the indices which are obtained based on the differences between the manifest variance and covariance on one hand and predicted variance and covariance on the other hand), comparative fit indices (indices which are measured based on the comparison between the formulated model and a base model). Now we explain each one of the indices, which are considered for the acceptability of the model (table 3).

Table 3 Confirmation of model results

Indices	The index name	Abbreviation	The acceptable fitness	Fitness of the research model	Result
Absolute fit indices	Chi-Square distribution	Chi-Square	-	237,341	-
	Goodness of fit index	GFI	>0.9	0.902	Relatively Acceptable
	Adjusted goodness of fit index	AGFI	>0.9	0.850	Acceptable

comparative fit indices	Non-normed fit index	NNFI	>0.9	0.798	Acceptable
	Normed fit index	NFI	>0.9	0.755	Acceptable
	Comparative fit index	CFI	>0.9	0.812	Acceptable
	Relative fit index	RFI	>0.9	0.709	Acceptable
	Increasing fit index	IFI	0-1	0.814	Acceptable
Parsimony fit indices	Parsimony normed fit index	PNFI	>0.5	0.599	Relatively Acceptable
	Root mean square error of approximation	RMSEA	<0.1	0.1	Acceptable
	Normed chi-square	CMIN	1 - 5	4.654	Acceptable

Research model in this thesis according the hypothesis and proposed method, has been demonstrated in figure 1.

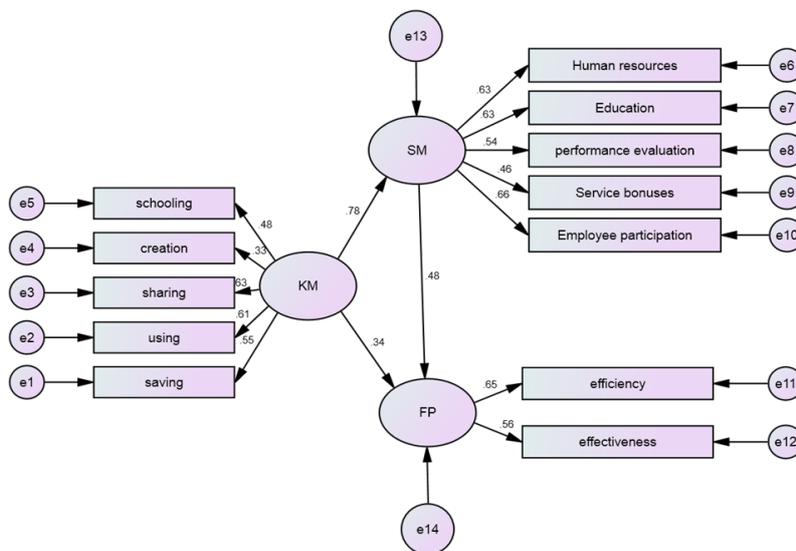


Figure 1: research model

When  $P < 0.05$  it means that the relation is meaningful. According to the fact that in the weighted regression table, the P is less than 0.001 for the effect of knowledge management on the strategic human resource management, and it is 0.004 for the effect of knowledge management on the firm performance, and also the effect strategic human resource management on the firm performance is 0.004, it can be concluded that all three hypotheses (1, 2 and 3) are confirmed.

Moreover, the 4<sup>th</sup> hypothesis was investigated which says strategic human resource management has a positive and

meaningful effect on the relation between knowledge management and organizational performance. The direct relation of knowledge management and firm performance is 0.34 and the indirect effect of knowledge management through strategic human resource management is  $0.48 * 0.78$ . The value of the indirect effect was estimated to be 0.37. The total effect of knowledge management on firm performance obtained from the sum of direct and indirect effects was 0.71, therefore the 4<sup>th</sup> research hypothesis was also confirmed.

Table 4 Results of research model and interaction of factors

	Impact factor	Standard deviation	C.R.	Meaningfulness level	Result
SM<---KM	0.78	0.124	7.142	***	Accepted
FP<---KM	0.34	0.199	2.058	0.040	Accepted
FP<---SM	0.48	0.173	2.885	0.004	Accepted

**4 Conclusion**

The present research was conducted to investigate the intermediary effect of strategic human resource management on the relation between knowledge management and performance of the firms in Aras free-trade zone. The first finding obtained from this study was that knowledge management has a positive

and meaningful effect on organizational performance. The outcome of this hypothesis is in line with the studies some other researchers such as Daniel & Garrigos (2006) and Rehman Asghar (2015) have done. Knowledge management also had a positive and meaningful effect on strategic human resource management. This finding is in line with the finding of Chen & Huang (2009). Furthermore, according to this research 3<sup>rd</sup>

hypothesis, strategic human resource management influences performance of the firms existed in this research population. The finding of Collins & Clark (2003) supports this. According to the 4<sup>th</sup> hypothesis, the intermediary effect of strategic human resource management on the relation between the knowledge management and performance of firms in Aras free-trade zone was confirmed based on the obtained results. Sanchez et al (2015) have found the same results.

Considering the above-mentioned results, it can be concluded that nowadays organizations need to apply knowledge to develop and make progress in their performance. In this regard knowledge management is the factor organizations need to apply. The application will turn into a system. However, there are some challenges and opportunities in this way which can support the development of knowledge management. Therefore, in the future only those organizations will be successful that are able to internalize and manage knowledge.

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## IMPACT OF PARTICIPATION OF TEA FARMERS' AND MANUFACTURERS' IN THE PROFIT AND LOSS OF SELLING DRIED TEA ON THE QUALITY OF TEA

<sup>a\*</sup>HADI MOTEZARE

<sup>a</sup>PhD in commercial management, Instructor of Islamic Azad University Lahijan Branch –Iran

Email: <sup>a</sup>hadi.mphd@gmail.com

**Abstract.** In this research, the rate of involvement of tea farmer and manufacturer in the profit of selling dried tea is selected as an independent variable and quality of produced dried tea as a dependent variable. Statistical populations of this research are composed of experts and specialists in tea industry of Guilan province and Lahijan city has been selected as a statistical sample. Descriptive-analytic method and correlation research branch were used in this research. For testing hypothesis, the data has been selected based on field works and from grounding branch. Thus, in addition to performing library studies, the researcher has interviewed managers and skilled experts of tea industry and to investigate and analyses of key variables, a questionnaire has been designed and distributed.

**Key words:** Tea, Tea quality, Tea farmers, Tea factories.

### 1. Introduction

After various operations including pelias, sieve, fermentation, drying on delicate leaves, stems and buds of *Camellia sinensis* (kind of plant), the outcome is called tea (Arzpeyma, 1999).

Quality of produced dried tea depends on some special properties: smell, taste and color. Tea quality is varied according to consumers' taste in different countries (Ashpari and Mohama, 2000). Are those who produce a green leaf of a plant called *camellia sinensis* in the process of planting nursing it to maturity and harvesting which is the primary material of dried produced tea. Are factories that produced dried tea with different operation such as pelias, friction, fermentation and drying on the green leaf of a plant called *camellia* as a primary material of producing tea (Azizizadeh, 2005).

Among 3 popular soft drink in the world such as tea, coffee and cocoa which have a narcotic influence and also different effects on body, tea is considered as an old soothing drink and it has a good position as well. After drinking water, tea is the healthiest and widely-used drink in the world. It is a traditional drink in many countries and the consumption and sale of tea totally depends on the taste of consumers, while people of England and India drink their tea with milk, preferably drink dark color tea and they don't care about the smell of it. People of Austria and Bulgaria drink their tea with fresh lemon and they don't care about the taste of tea. But Iranian people totally care about smell and taste of tea (Saboori, 1996). According to this, countries such as England, India, Kenya, Sri Lanka, and China have extended marketing research on people. They tried to know about the taste of consumers of different part of the world and then produce high quality tea similar to the taste of consumers. By this, not only they could create jobs for people and fixing their own position in an internal market, but also they could create huge amount of money for their country by exporting their produced tea to different part of the world.

Iran is also one of the tea producers' countries in the world which has one century experience in planting and tea industry. But unfortunately because of lack of proper investment in research, especially marketing research and also not considering the taste of consumers, Iran's produced tea doesn't have good quality. So internal consumers use foreign good quality tea and Iran's tea loses its own place in consumer basket (Moradmand and Ashpari, 2009).

Tea is used as a main part of a daily meal (breakfast) in Iran and thousands of people are involved in the process of planting, producing, and selling it. Agricultural economy of Northern provinces depends on producing tea. So lack of proper investment in the tea research department and any recession and

depression in production and selling tea lead to collapse of agricultural economy in the part of planting and tea industry, unemployment of workers in this industry and finally it will be an economic crisis for the country (Moezi, 2009). Thus it is necessary to do something in the part of tea research and do vast marketing research to produce good quality tea match with different countries consumers' taste to develop tea production, reach to flourish in economy and bring it to its real position in consumer basket.

Effective factors in the quality of produced dried tea are: primary material, machinery, production method, exploitation management system, expert human force and the rate of involvement of tea farmer and manufacturer in the profit of selling dried tea (Freedman, et al., 1998).

In this research the researcher is investigating the effects of the rate of tea farmers' and manufacturers' involvement in the profit of selling dried tea on the quality of produced tea. The researcher is hopeful that the result of this research solves the problems of not having quality of produced tea.

In the current exploitation management system of country, tea farmers sell tea green leaf to government with guaranteed price, then they try to transfer green leaf to dried tea with paying fees to manufacturers. So there is no relationship between producers and consumption market. The quality of produced tea depends on the quality of primary material (tea green leaf), complete supervision in all stages of production, full abeyance of technical rules and related standards (Witmer, 1999). Due to lack of involvement in the profit and loss of selling dried tea between tea farmers and manufacturers, which is totally related to the quality of produced tea, they don't have any responsibility in producing good quality tea and just quantity is important for them.

Tea as an agricultural strategic commodity has a basic role in economy of country. The main purpose of this research is recognition of effective factors on the quality of produced tea, using them to enhance the quality of interior tea and provide a situation that interior tea competes with foreign tea. If the consumption of the society goes to the interior tea, not only it will enhance its market and lead to flourish in economy but also it will increase the producers' incomes and also create jobs for country.

### 2 Method of research

Descriptive-analytic method and correlation research branch were used in this research. For testing hypothesis, the data has been selected based on field works and from grounding branch. Thus, in addition to performing library studies, the researcher has interviewed managers and skilled experts of tea industry and to investigate and analyses of key variables, a questionnaire has been designed and distributed. To define and describe variables, average index, standard deviation and column diagram were used and two sided T-test was used to test hypothesis in inferential statistic.

### 3 Population and statistical sample

Statistical populations of this research who are all experts and specialist of tea industry are working in investigation center of tea factories and other units of tea organization. Lahijan is the first city that tea was planted in it, it is also the second tea producing city in the state of planting surface and production amount according to the documents. Therefore 105 skillful experts and specialists were selected in area of tea industry and well-informed on world and country's tea state and they are able to reply specialized questions of study. They are selected as statistical sample and formed study sample volume.

**4 Research hypothesis**

Participation of tea farmer and manufacturer in profit and loss of sale has no effect on quality of produced dried tea

$$H_0: \mu=3$$

Participation of tea farmer and manufacturer in profit and loss of sale effect on quality of produced dried tea

$$H_1: \mu \neq 3$$

Table 1: of Result of Testing research Hypothesis (Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale)

research Hypothesis	Sample Volume	Mean	Standard Deviation	Mean of Measurement Error
Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale	105	4.94	0.233	0.023

Table 2: of Result of Testing research Hypothesis (Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale)

research Hypothesis	Calculated T	Freedom Degree	Significance Level	T of Table	Deviation of Mean	Confidence interval for the mean difference from the theoretical mean	
						Low level	High level
Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale	85.3179	104	0.000	1.9830	1.943	1.90	1.99

$$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}} = \frac{4.94 - 3}{\frac{0.233}{\sqrt{105}}} = 85.3179$$

Table 3: of Frequency Distribution of research Hypothesis (Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale)

Description	Frequency	Percentage of Frequency
Very low	0	0
Low	0	0
Average	0	0
High	6	5.7
Very high	99	94.3
Total	105	100

Considering the obtained data from the above table that is prepared by five items Likert scale, the respondents have answered the questions related to seventh hypothesis of research as below:

No answer was taken to “very low” and “low” and “average” item. 6 people have chosen the item “high” and 99 people have chosen the item “very high” which as a result, the item “very high” with 94.3 % has dedicated the highest coefficient. Results of the research are illustrated in figures 1 and 2.

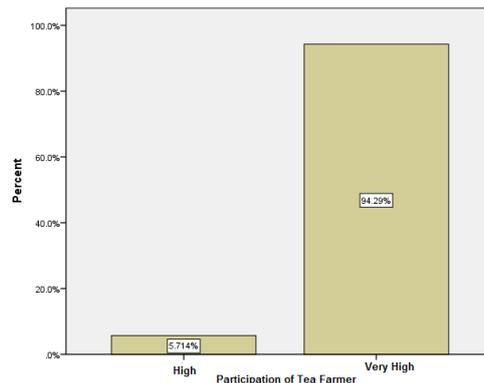


Figure 1: of Frequency Percentage of research Hypothesis (Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale)

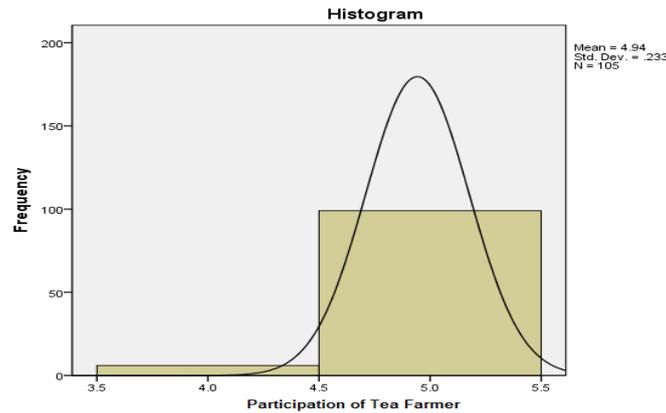


Figure 2: of Test of research Hypothesis (Participation of Tea Farmer and Manufacturer in Profit and Loss of Sale)

## 5 Conclusion

Considering the obtained results from the above table, since the amount of calculated t-test is larger than the t of the table,  $H_0$  is rejected in error level of 5% and  $H_1$  (impact of participation of tea farmer and manufacturer in profit and loss of sale on quality of produced dried tea) is accepted. Because statistics of t is in  $H_1$  area, it can be said that in confidence level of 95%, participation of tea farmer and manufacturer in profit and loss of sale effects on quality of produced dried tea.

To increase internal produced tea quality and maintenance and development of its market share, some suggestions are mentioned according to obtained results from research hypothesis as follows:

- 1- Establishing complexes and cooperative society of planting and tea industry with involvement of tea farmers and manufacturer.
- 2- Financial support of government from complexes and cooperative society of planting and tea industry to do agricultural modern methods and using modern and standard conversational industry.
- 3- Support of government for establishing sell market of dried tea in order to sell produced dried tea of complexes and cooperative society of planting and tea industry.
- 4- Omitting the guaranteed price of buying tea green leaf to encourage tea farmers to produce high quality green leaf.

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## INVESTIGATING THE EFFECT OF SOCIAL STATUS OF ELEVENTH GOVERNMENT'S MINISTERS ON THE COUNTRY'S MACRO STRATEGIES

<sup>a</sup> SANAZ MOONESI SHABESTARI

*"M.A. Student of Women's Studies, Faculty of Social and Economic Sciences, Al-Zahra University, Tehran, Iran  
Email: "Moonesi.sanaz@gmail.com"*

**Abstract:** The social status of each person represents the person's position and reputation in the field of social compared to other individuals and groups. The findings indicate that, the average age of eleventh cabinet ministers is 58 years old, which represents the presence of experienced people in the cabinet and young people, are not benefited. The birthplace of the majority of ministers of large and populated provinces such as Tehran, Esfahan and Tabriz, respectively. The majority of cabinet people have PhD degree in related fields of domestic universities. State board of moderation consist mainly academics with experience of management and administrative services, those who have privileges and honors in their career.

**Keywords:** social status, the Council of Ministers, the government of prudence and hope, macro strategies.

### 1. Introduction

Social status represents each individual's social status in society that through age, gender, place of birth, education and science scores, income sources and... can be provided an analysis of it. In other words, social status refers to a position that individual archives in the group or social rank compared to other groups. One's social status determines the person's salary and benefits. (Cohen, 2008) In fact, social status is as a social container or form that in its framework, how dealing with social environment is taken place. (Javaheri, 2007)

On the other hand, the study about the origin and social status of the elites, such as the need to research and understand the class structure of society is useful not only because it achieves the key to understand and explain the governmental power system, but also it is useful in the sense that elite group is the most effective social and political agents and forces in developing countries, almost all behaviors and decisions will depend on the interests of this group. In addition, identify the political structure of Iran without the knowledge of quantitative and qualitative characteristics of the political elite is ineffective, thus, research about elites and their social origin in Iran's society as other societies is the basic research in the field of political sociology. (Azghandi, 1997)

Among the political elites, awareness of social status and origin of ministers as the powerful elites in governments has particular importance; because ultimately the ministers make decision about country's macro policy and decision-making process in government is dependent on their social status. Obviously, people who have a social status appropriate with their responsibility, in ideal conditions make suitable decisions.

By coming of the eleventh government, a new vision for the Islamic Republic of Iran was opened. Hassan Rohani, with slogans such as moderation, détente and interaction with the world, the peaceful settlement of the nuclear issue and removing sanctions, elitism and enjoying the rationality could be won the eleventh presidential elections. To realize the slogans, prudence and hope government used the ministers that investigating their social status and understanding the effect of their social status in the country's macro strategies is the purpose of this article.

### 2. The concept of status and social status

The term «Status» in word means status, prestige, dignity, base, rank, rate, position and situation is used. (Haghshenas and others, 2006: 1666) Many people use this word to describe the prestige and social value that the individual in society has it. (Ramazani and Eyvazi, 2010)

In other words, to determine the position of the individual in society, social status word is used. According to some definitions, the social status is "a value that a group is considered to a social role and value of one thing is obtained when its proportion with other things to be certain and in other words, to be ranked. Whenever members of one group in determining the value of one or another group or its roles, according to its standards, to be agreed with each other, we say, they have a social value and when a social role is valued socially, social status of that role will become evident." (Egbern and Nimkaf, 1971)

In other words, "social status refers to a position which individual in group or social rank of a group achieves compared with the other groups. One's social status determines the rights and privileges of person." (Cohen, 2008: 80) Also, "social status refers to the differences between social groups in terms of respect or social standing that others consider to them." (Giddens, 1997)

Social statuses are considered a particular type of social segregation in which social hierarchy will be important. (Haji Yusefi et al., 2012) social status has different principles: economic fundamentals, political, scientific, literary, cultural, social and family. Economic conditions will allow a person to have a better location, to be a member of the town's premier groups and to have more varied social relations. (Mohseni, 1996) Of course, to provide a detailed definition of social status, it should be considered its features derived of several social factors that all those factors appropriate to social necessities and conditions on varying degrees in the formation of status are effective or to be considered economic origin only factor in the formation of social status. (Haji Yusef et al., 2012)

#### 2.1 The identifier social status

1. The status of the individual or group in a social system with mutual expectation of holders of other status in the context of a unit structure;
2. the position of person or group according to their distribution in a social system at cases with regard to the distribution of rights of responsibilities, power and authority in that system such as terms such as up status, and down.
3. The senior official considering their distribution in a social system. (Zibakalam et al., 2010)

Sociologists have found that almost every aspect of our lifestyle, including IQ, educational attainment, family size, nutritional criteria, and political beliefs, diseases from which we suffer and even our habit in sexual relations is related to our status in our social hierarchy. (Robertson, 1993)

Meanwhile, social determinants of society status are very different from a society to other society within a society from one group to another. But since all the status by social way i.e. with the external factors to the person are determined, there are some common global standards in the assessment of good and evil, good and evil, excellent and inferior. In other words, these criteria are hidden in social values, on things that are considered important, deserve and respected. In a certain sense, these criteria are made of a series of crucial elements with internal cohesion that everywhere human lives socially, are present. These criteria are:

- Ancestors or lineage gives person a privileged or ordinary position, for that birth in a reputable or notorious family in society even in the most tolerant is considered a value. Dignity

or non-dignity of predecessor is on several factors: reputation of family, history of residence in the district, native or immigrant, belonging to the minority or the majority.

- Establishment situation, good or bad is one of the most prestigious criteria for that material assets are measurable and tangible objects. The source of wealth has a social meaning. A wealth that is accumulated generation by generation and inherited in terms of social has a higher dignity to a new wealth or wealth that is achieved from questionable ways.

- Usefulness, practical efficiency of one person: person in terms of what "performs" in the society to be ranked and its ranks depends on the value that people consider for jobs.

- The amount and type of one's education and the quality of education.

- In societies where religion and religious bodies play an important role in the social structure, high religious education, and validity of scientific fields where taken Ijtihad degree is the determining criteria of social status.

- Biological properties: gender is a global benchmark, in the sense that almost in all societies; men have a superior social status to women. Age is also a global benchmark for assessing social status, with this feature that this criterion is considered after puberty and its application is not the same everywhere, in some communities, old people have higher social status in some other young. Beauty (beautiful face and fitness) is the objective criteria of ranking social status. (Nikgohar, 1994)

## 2.2 Iranian social status

There is harmony among value system of a society and system of its classification and stratification through the assessment and classification of positions and social statuses. There is consensus in some communities about roles, personal and social characteristics and preferential assessment system that on the one hand, provide valuable status and the interests of the elites and on the other hand, the power of elites causes the public opinion in this regard. But the advantages, privileges and social rewards in certain type form of social interactions. Social statuses are legitimate and symbolic foundations for rewards and resources produced or available in the community. Selection and assignment of situations is done by a complex system of rules. The rules depend on the qualifications and personal characteristics or social backgrounds or categories and dimensions of status such as age, sex, occupation, and education.

In other words, the social statuses represent different control of individuals and groups in resources, rewards, and limitations. Similar statuses, tends to form relatively stable and hierarchical groups. Stability and order of hierarchical of various statuses has the normative characteristics, behavioral patterns and attitudes and also relations between the group and a special intergroup. Various relations of subordination and domination, authority and obedience, respect and ill-treatment are existed among the hierarchy. Privileged groups try to control and allocate more resources and material and non-material rewards for their own and have little power and influence on controlling resources, but through various status, they try to achieve increasing rewards and resources for themselves

Thus, social status indicates a hierarchical order in the social system that indicates the position of any rank in relation to other positions. Operator of any status to be had a certain amount of respect, subjugation and control in valued resources in the community. Occupation of social status represents a structure in which individuals achieve businesses, income or particular style of life appropriate to it. The formation of a variety of statuses is important that has numerous individual and collective consequences, because it explains a wide range of behaviors,

attitudes and inter-group and individual relations and therefore in sociological, less phenomenon apart of changes is investigated. (Azam, 2001)

In the meantime, many experts according to the characteristics of their communities have specified social statuses in their country. In each country, based on parameters of income, occupation, social status, etc., or even just one of these factors has separated social status. Historical records of social status in Iran shows dividing segmentation and social groups are considered the social criteria of social structure and social development and differentiation of responsibilities in Iran has a historical root. About the social status, due to the controversies on consistent definitions from the concept of status, in particular with regard to the growing groups in the community that their position is not reducible to their economic origin, it should be assumed features of social status derived from multiple social factors that all of those factors according to the social circumstances and necessities in different degrees are effective in the formation status.

Accordingly, to explain social status in Iran, in addition to the existing sociological patterns, it should be considered characteristics of Iranian society and the role of cultural and ethnic groups. Some social groups in Iran are divided on the basis of social statuses. Clerics and intellectuals are including the important social groups that in independent status have social dignity. While the economic source of their status could be different, the new middle status is present as a great force in politics, social and economic field and political and ideological nature of this status has led to social changes and determining political, social and economic positioning play a dynamics role. In introducing the new middle status, many factors should be considered such as intellectual, religious, occupational, educational trends and other factors. These factors have been formed in particular social relations and influenced by time events and developments.

In the field of political sociology of Iran, Max Weber's social status categorized pattern is useful in many ways. According to Weber, social categorization in addition to the economic aspect considers social groups and social status. According to components of economic, social and cultural, it can be considered five statuses for Iran: upper status, upper middle, status, lower middle status, low status, marginal status. (Haji Yusefi et al., 2012)

## 2.3 Social status of Council of Ministers of the Islamic Republic from the beginning of eleventh government

In the Islamic Republic of Iran, after the presidential elections and electing president by the people, President introduces an individual for each ministry as minister to the Parliament. The president's proposed ministers must obtain a vote of confidence from parliament, after achieving vote of confidence from Parliament; they constitute a council that is called Council of Ministers, the Cabinet of government. Minister is placed at the head of ministry and manages affairs related to ministry. Ministers have a number of authorities in the field of their work, including decision-making authority. Each minister according to the authorities granted to him by law has the right to decide and manage affairs related to the ministry. (Tabatabai Motmani, 1994)

At the time of formation of the Islamic Republic until August 2013, ie the time of attestation of Hassan Rohani as the eleventh president-elected in Iran, ten cabinets are constituted in Islamic Republic of Iran that their Council of Ministers included 336 minister-elected. Of a total of 336 ministers-elected, 135 ministers are in charge of one ministry, 19 ministers are in charge of two ministries and other 2 people had the responsibility of more than two ministries.

By comparing the cabinets after war i.e. the eras of Hashemi Rafsanjani, Khatami and Ahmadinejad, almost the majority of ministers have experienced the presence in ministerial posts. The most number belongs to the Council of Ministers of Cabinet of Hashemi Rafsanjani in which about 61.42 percent of cabinet ministers have experienced the membership in Council of government. Then majority belongs to cabinet of Seyed Mohammad Khatami with a ratio of 51.62 percent. The least record of membership of ministers in the cabinet belongs to the ninth cabinet; about 94 percent of ministers in the cabinet for the first time are the membership of the Cabinet in the level of Council of Ministers. (Eyvazi and Ramazani 2010)

- Most changes of cabinet with appointment and dismissal of 21 ministers belonged to the ninth and tenth state. During this period, almost half the cabinet members changed.

- At this time only one female minister was appointed to health ministry that in its kind was unprecedented. Ms. Marzieh Vahid-Dastjerdi was the first female minister in the government of Ahmadinejad that his removal from the Ministry of Health caused the criticism of MPs.

- With the passage of time, gradually the level of education of Council of Ministers was added in higher education (MSc, PhD, Medical Professor);

- In the early years of the revolution, especially in the Cabinet of Hashemi Rafsanjani, a significant percentage of ministers were educated of foreign universities, but gradually the number of ministers with education of Iran's universities is increased to the point that in the ninth Cabinet, it reaches to the most amount i.e. about 90 percent of the Council of Ministers of this state.

- Expertise of most of Ministers of cabinet of Hashemi Rafsanjani was Technical - Engineering, Khatami's cabinet was technical engineering with humanities and the Cabinet of Mahmoud Ahmadinejad was management and economics.

- The youngest Cabinet was the Cabinet of Hashemi Rafsanjani and the oldest cabinet belonged to Ahmadinejad.

- Experience of presence in important governmental positions and posts has been an important factor in the selection of council of ministers.

- Social status of ministers was belonged to the middle class (traditional and new).

- Gradually the military presence is added and in contrast, Clergymen presence in political power is reduced. (Eyvazi and Ramazani 2010)

#### 2.4 Social status of Eleventh government's council of ministers

Rohani, with slogans such as moderation, détente and interaction with the world, the peaceful settlement of the nuclear issue and the removing of sanctions, elitism and enjoying the rationality could be won the eleventh presidential election. In this context, he believes that "the Shiite Islamic thought is based on justice and moderation ... moderation is the method and way, moderation is both route and destination. Moderation without rationality is going away. Slogan without science-oriented and using the human experience, without transactional alongside peace and stability, without idealism with realism without morality, manners, tolerance and freedom is not possible." (Rohani, 2013) About macro strategies of his government, he believes that "policy and the general principles of the state program, intellectual honesty, moderation in the behavior of politicians and decision-making and implementation in government, decision-making based on collective wisdom, the centrality of national interests, trying to fulfill good governance

principles, pragmatism, respect citizen's rights, commitment to growth and comprehensive development, improve the quality of life of Iranians, fight against corruption, reform and renewal capacity of government institutions, interaction with powers based on the legal frameworks and provide the people's demand, sustaining the environment, rely on people, the support of the young generation and constructive engagement in international relations.

### 3. Results

#### 3.1 Eleventh government to realize the programs and macro strategies introduces the following ministers to parliament:

- Abdolreza Rahmani Fazli (Ministry of country) with 256 votes in favor, 9 abstentions and 19 votes against;

- Mahmoud Vaezi (Ministry of Communications) with 218 votes in favor, 20 abstentions and 45 votes against;

- Bijan Namdar Zanganeh (Ministry of Oil) with 166 votes in favor, 13 abstained and 104 votes against;

- Mostafa Pourmohammadi (Ministry of Justice) with 201 votes in favor, 19 abstentions and 64 votes against;

- Ali Jannati (Ministry of Culture) with 234 votes in favor, 12 abstentions and 36 votes against;

- Mohammad Javad Zarif (Ministry of Foreign Affairs) with 232 votes in favor, 13 abstentions and 36 votes against;

- Seyed Hassan Ghazizadeh Hashemi (Ministry of Health) with 260 votes in favor, six abstentions and 18 votes against;

- Abbas Ahmadi Akhundi (Minister of Roads and Urban Development) with 159 votes in favor, 18 abstained and 107 votes against;

- Ali Rabiei (Ministry of Labor, Cooperatives and Welfare) with 163 votes in favor, 21 abstained and 100 votes against;

- Mahmoud Hojati (Ministry of Agriculture) with 177 votes in favor, 26 abstentions and 81 votes against;

- Hossein Dehghan (Ministry of Defence) with 269 votes in favor, five abstained and 10 voted against;

- Mohammadreza Nematzadeh (Ministry of Industry, mining, trade) with 199 votes in favor, 24 abstentions and 60 votes against;

- Hamid Chitchian (Ministry of Power) with 272 votes in favor, five abstentions and 7 votes against;

- Seyed Mahmoud Alavi (Ministry of Information) with 227 votes in favor, 17 abstentions and 38 votes against;

- Ali Taiebnia (Ministry of Economy), with 274 votes in favor, 3 votes Mtn and 7 votes against;

- Mahmoud Goudarzi (Ministry of Youth and Sport) with 199 votes in favor, 24 abstentions and 44 votes against;

- Mohammad Farhadi (Ministry of Science, Research and Technology) with 197 votes in favor, 10 abstained and 28 voted against;

- Ali Asghar Fani (Ministry of Education) with 185 votes in favor, 24 abstentions and 53 votes against.

While Mr. Mahmoud Goudarzi, Ali Asghar Fani, Ali Jannati, after three years and three months withdrew from the cabinet and instead of them, Massoud Soltanyfar, Fakhruddin Denesh Ashtiyani and Seyed Reza Salehi Amiri were added to the cabinet of Hassan Rouhani.

The following table investigates people's social status indices such as age, place of birth, level of education and social status of council of ministers of the eleventh government.

Table 1. People's social status

Index	Minister	Age	Birthplace	Education level	Discipline	Place of education	Main job	Presence in cabinets	Source of income	Administrative positions	Specialty field
	Rahmani Fazli (Ministry)	54	North Khorasan	Ph.D	Geography	Iran	Professor	-	Faculty	More than 20 cases	Related
	Vaezi (Communications)	61	Tehran	Ph.D	International Relations	Iran	Research Assistant	-	Public	6 cases	Unrelated
	Namdar Zanganeh (Oil)	61	Kermanshah	MA	Civil engineering	Iran	The Expediency Council	7 cabinets	Faculty	More than 10 cases	Unrelated
	Pourmohammadi (Justice)	54	Qom	Seminari	Law and Jurisprudence	Iran	Head of the organization	1 cabinet	Public	More than 10 cases	related
	Jannati (Culture)	64	Qom	Seminari	Islamic Science	Iran	Researcher	-	Public	7 cases	related
	Zarif (Foreign Affairs)	54	Tehran	Ph.D	Rights and International Relations	America	Iran's ambassador to the United Nations	-	Faculty	More than 10 cases	related
	Hashemi (Health)	54	Khorasan Razavi	Ph.D	Ophthalmology	Iran	Physician	-	Faculty	More than 6 cases	related
	Akhundi (Roads and Urban Development)	56	Qom	Ph.D	Political economy	England	A member of the Engineering Council	1 cabinet	Faculty	More than 10 cases	related
	Rabiei (Labor, Cooperatives and Welfare)	58	Tehran	Ph.D	Management	Iran	Professor		Faculty	More than 5 cases	related
	Hojati (Agriculture)	58	Esfahan	BA	Civil	Iran	Agriculture	2cabinets	free	More than 5 cases	related
	Dehghan (Defence)	57	Esfahan	Ph.D	Management	Iran	Military	-	Public	More than 5 cases	related
	Nematzadeh (Industry, mining, trade)	68	Tabriz	BA	environment	America	Deputy of Minister	3cabinets	Public	More than 10 cases	unrelated
	Chitchian (Power)	56	Tabriz	Ph.D	industrial engineering	Iran	Secretary	-	Public	More than 10 cases	related
	Alavi (Information)	59	Fars	Ph.D	Law and Jurisprudence	Iran	Member of the Experts	-	Public	More than 10 cases	related
	Taiebnia (Economy)	52	Esfahan	Ph.D	Economy	Iran	Faculty	-	Faculty	More than 10 cases	related
	Goudarzi (Youth and Sport)	58	Hamadan	Ph.D	Physical Education	Iran	Professor	-	Faculty	More than 10 cases	related
	Farhadi (Science, Research and Technology)	64	Semnan	Ph.D	General Practitioner	Iran	Surgeon	2cabinets	Faculty	More than 10 cases	related
	Fani (Education)	59	Tehran	Ph.D	Management	Iran	Professor	-	Faculty	More than 10 cases	related

In the table 1, it must be said:

- Age of individuals is considered one of the criteria for determining and investigating their social status. In sociology, especially political sociology, the presence of forces and young people, middle-aged and older each has a great importance in the decision making process. Youth has high motivation and potential in managing affairs and in political decision-making, including influential forces of community. In contrast, middle-aged and older elites have superior experience and knowledge to the affairs in the field of political decision-making. The presence of middle-aged and elderly people in important and political

positions causes to increase their skills in decision-making and understanding the issues and needs of the community. In investigating the age of cabinet of Rohani becomes clear that the average age of Cabinet of Ministers is 58 years that indicates the presence of qualified and experienced people in the Cabinet and young people are not benefited.

- Where a person is born and grows can play a significant role in the formation of character and individual opinions and decisions made by him in the future. By checking the birthplace of Ministers of eleventh government, it is observed that dispersion of birthplace of Ministers only contains 9 provinces that the most

frequency is related to large and populous provinces such as Tehran and the provinces of Isfahan, Qom and Tabriz respectively.

- Identification of quantitative and qualitative position of education of political elites in every country is the important issues in political sociology studies because education level of social groups directly related to the social status and interests of their class. In fact, the more the wealth of society is more and higher, it is expected that to have better level of education. In addition, the more the level of education and awareness of people and the elites is higher from domestic and international circumstances; certainly they will participate in important political decision-making process with more rationality. (Azghandi, 2006)

Check the latest education degrees of ministers of eleventh government shows that the vast majority of people of cabinet are with higher education and doctoral degree in disciplines related to their organizational positions. In addition, with the exception of three cases, Mr. Zarif, Akhondi and Ne'matzadeh, the rest received their degree from prestigious domestic universities.

- Employment and income is considered another contributing factor on people's social status. In fact, job of any person determines his income and lifestyle and class.

In addition, each individual's job affects his consciousness about the different issues and affairs of society and equally in making decisions by the political elites; so that if someone has a higher level of knowledge to affairs of society, in making decisions will act with more precision and intelligent based on the needs and necessities of the community that this issue plays an important and effective role in the preservation of the political system.

The state board of moderation consist mainly academics with a record of administrative and managerial services; people who have privileges and honors in their work filed. In this cabinet, veteran diplomat, University professor, prominent economist, qualified physician and ... have been appointed in related posts and even if minister degree is not consistent with the field of his service, his record in this post in the previous Cabinets with experience in previous management positions fill this gap.

- Another point in this context is that a third of the ministers have presence record in the previous cabinets in their repertoire and the rest before achieving the office of the Ministry have had the experience in centers, institutions and various positions which play an important role in increasing their skill and expertise in the area of political decision-making and handling of affairs.

- Ministers' social status belongs to the traditional middle and new class. In this Cabinet, in addition to academics, there are individuals from different ranges including clergyman, military and agriculture.

- Finally, in discussions of gender and social status, it must be said that, like most of the previous cabinets, moderation government not benefitted of female minister in the cabinet.

### 3.2 Eleven government ministers and the country's macro policies

Study about the origin and social status of the elites, such as the need to research and understand the class structure of society is useful not only because it achieves the key to understand and explain the governmental power system, but also it is useful in the sense that elite group is the most effective social and political agents and forces in developing countries, almost all behaviors and decisions will depend on the interests of this group. In addition, identify the political structure of Iran without the knowledge of quantitative and qualitative characteristics of the

political elite is ineffective, thus, research about elites and their social origin in Iran's society as other societies is the basic research in the field of political sociology. (Azghandi, 1997)

On the other hand, according to experts, Iran before the eleventh presidential election faced with three challenges that are connected to each other as chain and if one of them emerged as crisis and become the social movement, it could be led to political instability. Mentioned three challenges were in the field of political, social and economic.

- In the political field, fragmentation of power-sharing and multiplicity of political leadership and political power centers and the lack of political management has faced political system with challenge. Parallel managements, multiple targets and the lack of a unified political structure, along with distrust of political parties after the presidential election had challenged the political system. While in foreign policy of nuclear issue and the growth of extremism in neighboring countries was a major challenge for the country.

- In the economic field, problems were more tangible. Despite production capacity, there was little production facilities, huge liquidity was entered into the economy, without to be used for the production, there was a proper oil revenues but economic growth was very little, the country's overall income had gone up, but more poverty was observed.

- In the social field, the challenge was including the ravages of drugs and treatment, the accumulation of many records in the judiciary, the rapid growth of divorce, unemployment, drug addiction and corruption. (Mohammadi Lord, 2014)

In examining the social impact of eleventh government ministers on macro-economic policies, social and political of the country, taking into consideration the current circumstances and the interactions of politic, economy and society in each community on each other, it can be assessed performance of ministers relevant in each sector.

- In the areas of internal and external policies, despite the fact that the beginning of new round of nuclear negotiations, all things influenced by the foreign policy orientations and its measures ie, Mr Zarif, but creating relative stability in country, the widespread presence of political activists from both sides raised ie the conservative and reformist in the country, attention to ethnicity and ... shows the relative dynamics of domestic politics of Rohani state. But undoubtedly, the greatest success in Rohani state was in foreign policy that was the biggest priority of state. Solving the nuclear issue after years of conflict between Iran and world powers caused non-security of Iran's position in the international system, correct the global face of Islamic Republic of Iran, détente, reconstruction and reform of interactions with effective international powers in the national interest, normalize and improve relations with neighboring countries and strengthen constructive relations with non-hostile countries, signing the agreement of joint action plan and the continuation of nuclear negotiations, management, reduce and remove the multilateral and unilateral sanctions, constructive influence on global developments specially in the fields of combating terrorism and extremism, constructive and effective interaction with the world.

- In the social field, Rohani could make the relative openness in the field by utilizing experienced and efficient people. The most significant actions in the field is related to health sector and the most critics is for the Ministry of Education and Sports. While on cultural issues, including freedom of the press, film and music, the status of universities, freedom of organizations, the situation science, the success has net been much and the major cause of this less success can be considered in pressure of other organizations on the government as far as it was led to the resignation of three ministers.

- In the economic fields, it must be said that despite the fact that the economy is considered one of the most controversial areas of performance of any state but the economic part of Cabinet of Rohani took ahead economic policies that as to be able to have an effective role in improving the economic situation. Increasing stagnation in different fields especially housing and construction, unemployment, inflation, recession and increasing production costs and barriers to exports on the one hand and on the other hand, linking the country's economy to Barjam and America's failure to comply with its obligations and other matters, are including cases that has faced eleventh government's economic performance with stagnation.

#### 4. Conclusion

Eleventh presidential elections in Iran created a significant change in the composition of state and by superiority of coalition of pragmatists - reformists against the fundamentalists, provided the groundwork for change in the local, regional and international space. From the beginning, the eleventh state in terms of popularity for various reasons, including vote nearly twenty million and vitality that after the victory of the community showed, was placed in good condition. (Motaharnejad, 2013)

The government utilizing experienced and qualified people in its cabinet, in this context acted moderately and unlike the previous Cabinets, the criterion of ministers' selection was capabilities, abilities and their expertise. While in the periods of reconstruction and reform, responsibilities and governmental posts were divided between a few people and If displacement took place, they were these people who went from a post to other post and in the conservative government, all forces and managers at all levels of government were withdrawn and 16-year managerial experience was given to the archives and administrative affairs of the country were given at once to those who not had experience and even in some cases not had knowledge of the duties.

It is specified by examining the social status of the eleventh government ministers that the government is composed of an ideal cabinet. The average age of the ministers that is more than 58 years shows the experience and their management record. Having higher education that is in the field related to their job is the other positive case of cabinet of prudence and hope government while, the birthplace of majority of ministers is great and populated provinces such as Tehran, Isfahan and Tabriz. The majority of people of Cabinet has PhD degree in related disciplines from domestic universities and has record of management and administrative services in their repertoire.

Prudence and hope government by utilizing ministers with this social status could achieve success in the country's macro policies in the political (domestic and foreign policy), social and cultural fields but in the economy field, predetermined objectives still are not achieved. The cause of the weakness of the economic team of prudence and hope government in various economic indicators has been too much focus on the results of the nuclear negotiations. However, eleventh government despite the fact that was able to inhibit libertine inflation, but with reducing inflation, recession dominated in the country and economic growth rate sharply declined.

In the current situation that the country is facing recession, the most suitable act of eleventh government to promote economic growth is to fight against economic corruption and it is the most appropriate strategy to gain control over economic corruption, monopoly or oligarchy situations in which a group of clerks for a long time have monopolized power and economic decisions. Too much focus of power in the authority of individuals or institutions could create incentives for corruption.

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## LIQUIDITY RISK AND THE RELATIONSHIP BETWEEN INSTITUTIONAL OWNERSHIP IN BANKS AND FINANCIAL INSTITUTIONS LISTED IN THE TEHRAN STOCK EXCHANGE

<sup>a</sup>FATEME NAJAFI, <sup>b</sup>BABAK JAMSHIDINAVID

<sup>a</sup> Department of Accounting, Collage of Humanities, Kermanshah science and Research Branch, Islamic Azad University, Kermanshah, Iran

<sup>b</sup> Department of Accounting, College of Humanities, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Email: <sup>a</sup>fatemehnajafi12@gmail.com,

<sup>b</sup>jamshidinaid@iauksh.ac.ir

**Abstract:** The research main aim is study of relationship between liquidity risk and institutional ownership in banks and accepted financial institutes in Tehran Stock Exchange. This research is implicational based on its aim, is descriptive and measurable based on its nature, is correlative based on its methodology, and has padding data and squaring Regression which have been used to analyze research data. Research statistic sample includes all banks and accepted financial institutes in Tehran Stock Exchange. Research conclusions indicate that there aren't any positive meaningful relationships between these elementary standards: liquidity risk (cash money includes foreign exchange and coins, short-term investments, partnership stocks for sale, and demand deposits in banks) and institutional ownership.

**Keywords:** Liquidity risk, Cash money, short-term deposits, demand deposits, short-term investments, institutional ownership

### 1. Introduction

One of the risk kinds in banking industry is liquidity risk which directly causes damages to banks because of unsuitable management. Liquidity risk includes risk lack of necessary liquidity for short-term commitments' coverage and outputs' money. Keeping desirable level of cashing is banks' duties, if banks don't consider it, their liquidity risk will increase. So, successful desire or indirect activity are related to banks' abilities in liquidity exhibition to customers (Saeidi and ShaebaniMotlagh, 2012).

Institutional shareholders in recent decades have been important members of asset markets in most countries of world. So, most contents of investments have been done by these institutes. In fact, institutional investors are sources to supervise corporations and are the ways to solve representation problem through institutional ownership which approximate relationship between corporations' managers and beneficiaries (Kim 1993). Based on Bush description (2000), institutional investors are major investors such as banks, insurance corporations, investment corporations, and retirement boxes. It is believed that institutional investors' presences will cause change in corporations' behaviors that will originate from supervising activities which are done by these investors (Walery and Jinkin, 2006).

The main problem of the research is whether liquidity risk plays an effective role on institutional ownership of banks and accepted financial institutes in Tehran Stock Exchange or not? And how can the effect of effective variables on liquidity risk and institutional ownership of banks and accepted financial institutes in Tehran Stock Exchange in time duration of research investigation be?

The research is important because humans' decisions are along with limitations in information. The limitations will increase risk level and have effective roles in decisions, so risk level determination and its management are important for decision makers. (Doorlaf and Bollom, 2008). Based on experimental witnesses most investors are running away from risk and want extra returns to accept more risks. So, risk investigation in financial management is one of the main decision. Existence of big moderators such as institutional investor can solve agency problems because of his ability in economic advantage benefit originated from criterions (Diamond, 1984). Glaston and

Millgroom (1985), believed that institutional existence with information advantage will cause personnel costs for unknowledgeable investors and liquidity will decrease.

The main problem of the research is determining relationship between liquidity risk standards and institutional ownership in the accepted corporations in Tehran Stock Exchange.

### Research Background

Ahmadpoor and et al. (2011), in their research investigated corporation government effect and auditing quality on financial security cost through liability. The research conclusions showed that chief institutional shareholders' existences in investors' compositions and their activities supervisions would have meaningful decrease effect on liability cost of statistic sample corporations while auditing quality didn't have such effects.

Mehrmanesh and Jadehkenari (2014), investigated relationship between institutional ownership and share price fluctuations in the accepted corporations in Tehran Stock Exchange. The research conclusions indicated positive meaningful relationship between institutional ownership and increase fluctuations of shares' prices, while there is no confirmed bilateral and mutual relationship between ownership and pricefluctuations.

Long and Moft (2011), investigated relationship between information transparency and lack of liquidity insurance in crisis duration. Used standards to evaluate information transparency were based on accounting standards, auditor choice, profit management, observing analyst and anticipation accuracy. The research conclusions indicated negative relationship between information transparency and different standards lack of liquidity insurance such as liquidity changeability and corporation liquidity correlation with market liquidity and market return.

Zoorigat (2011), investigated ownership structure effect on auditing quality in Jordon accepted corporations. Research conclusions indicated positive meaningful relationship between institutional ownership and ownership concentration with auditing quality. While external ownership indicated negative and lack of meaning relationship with auditing quality.

Antonius (2013), investigated study of auditor choice characteristics with institutional investors. French corporations from 2006 to 2011 were the research statistic sample and research conclusions described positive relationship between external institutional investors and auditing quality.

### 2. Conceptual and Operational Definitions of Research Variables

Liquidity Risk (Independent Variable):

Liquidity risk in banks (demand coverage of cash money) is cash money for investors to indicate that:

How much do banks have ability to cover demand? Whether banks can answer investors to receive their received deposits or not? If this amount is high, bank liquidity risk will fall. The way to calculate this amount is brought in follow (Ardakani and et.al 2015):

Cash it: includes foreign exchanges and coins

Securities for sale it: short-term investments and partnership stocks for sale

Demand Deposit it: demand deposits in banks

$$[SIZE]_{(it)} = LN([Incom]_{(it)}) \quad (2)$$

Short-term Deposits it: People`s short-term deposits in banks

SIZE: corporation size, MV: corporation market value, i: investigating corporation, t: investigating year

Short-term loan it: total short-term loans of banks` acceptance

Total Assets it: total assets

Cash Money Such as Foreign Exchanges and Coins:

Based on Iran standard 2 of accounting standards, cash money is cash stock and demand deposits in banks and financial institutes in both Rials and foreign exchanges (include short-term investment deposits without any receipts).

Short-term Investments and Partnership Stocks for Sale:

Short-term investments are investments which can be sold easily or change to cash money and have been situated for one year. These investments are categorized in balance sheet as financial assets, so based on it finished cost or market price are reflected in financial statements. Partnership stocks for sale enforce corporations to establish stocks before determined contract nuisance with sale definite price.

These stocks` prices are more than nominal values which have extra amounts payments over nominal value and are called sale expenditure.

Demand Deposits in Banks: Demand (flow) deposits are deposits which banks should give back based on their money owners demands.

People`s Short-term Deposits in Banks: Deposits usually form big part of banks` liabilities. Customers` deposits indicate accepted amount of money from national money sources or foreign exchange. Amount, usance date, resistance, and foreign exchange type are topics which should be considered in the expense time of the sources.

Total Short-term loans of Banks` Acceptances: Main important asset of each corporation usually is get by short-term loans that are get by paid sources in one year or less than it and is used for temporary investment protection in used flow assets.

Institutional Ownership (Dependent variable): Based on presented definition by Azibi and et.al (2010), institutional ownership is collection of shares in banks, insurances, holdings, investments corporations, retirement salaries, assets securements corporations, investments boxes, organizations, governmental institutes, governmental corporations and corporations` shareholders. Rhimian (2012), suggested following formula:

$$S_i = (s_i^a) / s \quad (1)$$

Si: Institutional Owners` stocks, S: Total corporations` shares, Controlling Variables:

Assets Returns: Assets returns are received by net profit divisions (profit after tax deduction) over banks assets collection.

(ROA) Assets returns= net profit / banks assets collection

Bank Size (SIZE): In this research incomes collection of banks durations ends are considered as measuring criterion of banks sizes. To evaluate bank size, natural logarithm of bank value (summation of duration end incomes) is used in duration end (Dang Wazhang 2008). However, Zimerman (1983), used summation logarithm of sale incomes as corporation size factor. Corporation size is calculated by following formula:

### Research Methodology

In the research RahnavardNovin software has been used to gather data because of insufficient data in information bank, formal site of Tehran Stock Exchange (Codal Site) have been considered. At first RahnavardNovin software has been used to calculate independent variable data, liquidity risk which includes foreign exchange and coins, short-term investments and partnership stocks for sale, demand deposits in banks, people`s short-term deposits in banks, total short-term loans of banks` acceptances as assessment criterions of liquidity risk which are equal to weighting. Data extraction from RahnavardNovin enter Excel and are formulated for test hypotheses. Then to get other variable data, institutional ownership which is dependent variable in the research data extraction from RahnavardNovin enter Excel and are formulated for test hypotheses.

To get two controlling variables such as bank size and assets returns, at first natural logarithm of bank total incomes has been used to calculate corporation size variables. Then to receive assets returns variables, net profit ratio (profit after tax deduction) on total bank asset has been used.

Statistical analyses are done by computes` software`s. To test research hypotheses Regression analysis is used, models` meaningfulness are estimated by t-statistic, data measuring standard is a negative standard and relative standard shows highest and the most accurate measuring level. Research theoretical bases and backgrounds are collected analogically by library, other researches and internet, however, for research hypotheses acceptances or rejections statistical methodologies are used. Research aim is correlation relationship recognition between liquidity risk and institutional ownership, however, this research includes all researches which investigated relationship between different variables with use of correlation coefficient. So, correlation coefficient is an accurate indicator which indicate how variables changes depend on other variables.

The research can be past viewer or future viewer in term of its time duration. Totally, it can be said that if data gathering is related to the past event, research design will be past viewer, so this research is a past viewer one.

### 3. Statistic Population

Statistic population are all elements and people in a geographical criterion (world or region) that have one or several similar characteristics (Hafeznia and Sarmad 2003). The research considers all banks and accepted financial institutes in Tehran Stock Exchange that include 11 banks. Research data have been gathered by RahnavardNovin and formal site of Tehran Stock Exchange (Codal Site).

Table 1: Banks` names of research

Saman Bank
EtebaryToseah
EtebaryAskarieh
EghtesadNovin Bank
Parsian Bank
Pasargad Bank
Tejart Bank
Sina Bank
Iran Saderat Bank
Karafarin Bank
Melat Bank

**4. Data Gathering Methodology**

In this research library method has been used to gather data, it means internal and external publication sources in books and internet that have been used. Needed data to calculated research variables have been extracted by information bank of Rahavard Novin software. To compensate insufficient data in information bank, formal site of Tehran Stock Exchange has been used. Two software's Excel and Eviews have been used to process and analyze research data. While Eviews is an appropriate software of measuring economic. So, it is better to use it to analyze data.

**5. Hypotheses Tests**

**5.1 First Sub-hypothesis Test:**

There is a positive meaningful relationship between foreign exchange and coins with institutional ownership.

H0: There is no positive meaningful relationship between foreign exchange and coins with institutional ownership.

H1: There is a positive meaningful relationship between foreign exchange and coins with institutional ownership.

Table2: First Sub-hypothesis Test conclusions

<i>SIIit = 5/69 - 4/74Cit - 1209ROAit + 8/45 SIZEit</i>					
Meaningful level	t amount	Standard error	coefficient	Independent variable	Dependent variable
0.327	-0.987	4.8	-4.74	Cash money	Institutional ownership
0.00	-3.86	328	-12.09	Assets returns	
0.041	2.09	4.03	8.45	Corporation size	
0.893	0.134	42.39	5.69	Fixed amount	
0.304			Determination coefficient		
7.45			Fisher test		
0.00			Fisher meaningful level		
2.27			Watson Doorbin		

While Chow test is meaningful, so modulation methodology has been used to test research hypotheses. Data have been categorized to analyze in pudding way. Above table conclusions show the test squares to estimate model and vif amount indicated lack of any linear problem between independent variables.

Conclusions indicate that Watson Doorbin amount is 2.27, this conclusions describe that variables errors are independent from each other and there is no correlation between them. In the above table, determination coefficient amount is 0.304 which shows that independent variable with 30.4 percent amount has been justified. In otherwise, anticipation ability of dependent variable is 30.4 percent. Meaningful level of Fisher test describes that model in this hypothesis is meaningful. Meaningful level of t-test for cash money variable such as foreign exchange and coins is more than 0.050 (0.327). So, dependent variable hasn't been affected by it. Finally, H0 is accepted and H1 is rejected, there is no positive meaningful relationship between foreign exchange and coins with institutional ownership.

**5.2 Second Sub-hypothesis Test**

There is a positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.

H0: There is no positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.

H1: There is a positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.

Table3: Second Sub-hypothesis Test conclusions

<i>SIIit = -30/94 + 5/13SSit - 920ROAit + 1/047SIZEit</i>					
Meaningful level	t amount	Standard error	Coefficient	Independent variable	Dependent variable
0.235	1.19	4.28	5.13	Cash money	Institutional ownership
0.0017	-3.31	277	-920	Assets returns	
0.797	0.257	4.06	1.047	Corporation size	
0.449	-0.777	39.42	-30.94	Fixed amount	
0.311			Determination coefficient		
7.67			Fisher test		
0.00			Fisher meaningful level		
2.29			Watson Doorbin		

While Chow test is meaningful, so modulation methodology has been used to test research hypotheses. Data have been categorized to analyze in pudding way. Above table conclusions show the test squares to estimate model and vif amount indicated lack of any linear problem between independent variables.

Conclusions indicate that Watson Doorbin amount is 2.29, this conclusions describe that variables errors are independent from

each other and there is no correlation between them. In the above table, determination coefficient amount is 0.311 which shows that independent variable with 31.1 percent amount has been justified. In otherwise, anticipation ability of dependent variable is 31.1 percent. Meaningful level of Fisher test describes that model in this hypothesis is meaningful. Meaningful level of t-test for short-term investments and partnership stocks for sale variables is more than 0.050 (0.235). So, dependent variable

hasn't been affected by it. Finally, H0 is accepted and H1 is rejected, there is no positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.

**5.3 Third Sub-hypothesis Test**

There is a positive meaningful relationship between demand deposits in banks and institutional ownership.

H0: There is no positive meaningful relationship between demand deposits in banks and institutional ownership.

H1: There is a positive meaningful relationship between demand deposits in banks and institutional ownership.

Table4: Third Sub-hypothesis Test conclusions

<i>SIIit = -408 + 2.16DDit - 925ROAit + 2.22SIZEit</i>					
Meaningful level	t amount	Standard error	Coefficient	Independent variable	Dependent variable
0.357	0.928	2.23	2.16	Cash money	Institutional ownership
0.002	-3.24	284	-925	Assets returns	
0.566	0.576	3.84	2.22	Corporation size	
0.916	-0.104	38.93	-4.08	Fixed amount	
0.303			Determination coefficient		
7.4			Fisher test		
0.00			Fisher meaningful level		
2.35			Watson Doorbin		

While Chow test is meaningful, so modulation methodology has been used to test research hypotheses. Data have been categorized to analyze in pudding way. Above table conclusions show the test squares to estimate model and vif amount indicated lack of any linear problem between independent variables.

Conclusions indicate that Watson Doorbin amount is 2.35, this conclusions describe that variables errors are independent from each other and there is no correlation between them. In the above table, determination coefficient amount is 0.303 which shows that independent variable with 30.3 percent amount has been justified. In otherwise, anticipation ability of dependent variable is 30.3 percent. Meaningful level of Fisher test describes that model in this hypothesis is meaningful. Meaningful level of t-test for demand deposits variables is more than 0.050 (0.357). So, dependent variable hasn't been affected by it. Finally, H0 is

accepted and H1 is rejected, there is no positive meaningful relationship between demand deposits and institutional ownership.

**5.4 Fourth Sub-hypothesis Test**

There is a positive meaningful relationship between people's short-term deposits in banks and institutional ownership.

H0: There is no positive meaningful relationship between people's short-term deposits in banks and institutional ownership.

H1: There is a positive meaningful relationship between people's short-term deposits in banks and institutional ownership.

Table5: Fourth Sub-hypothesis Test conclusions

<i>SIIit = -59.38 - 3.28STDit - 1022ROAit + 10.83SIZEit</i>					
Meaningful level	t amount	Standard error	Coefficient	Independent variable	Dependent variable
0.050	-2.14	1.63	-3.28	Cash money	Institutional ownership
0.00	-3.94	259	-1022	Assets returns	
0.004	2.97	3.64	10.83	Corporation size	
0.175	-1.37	43.21	-59.38	Fixed amount	
0.340			Determination coefficient		
8.78			Fisher test		
0.00			Fisher meaningful level		
2.17			Watson Doorbin		

Data have been categorized to analyze in pudding way. Above table conclusions show the test squares to estimate model and vif amount indicated lack of any linear problem between independent variables.

Conclusions indicate that Watson Doorbin amount is 2.17, this conclusions describe that variables errors are independent from each other and there is no correlation between them. In the above table, determination coefficient amount is 0.340 which shows that independent variable with 34 percent amount has been justified. In otherwise, anticipation ability of dependent variable is 34 percent. Meaningful level of Fisher test describes that model in this hypothesis is meaningful. Meaningful level of t-test for people's short-term deposits in banks variables is less than

0.050 (0.357). So, dependent variable has been affected by it. Finally, H0 is rejected and H1 is accepted, there is a positive meaningful relationship between people's short-term deposits in banks and institutional ownership.

**5.5 Fifth Sub-hypothesis Test**

There is a positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership.

H0: There is no positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership. H1: There is a positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership.

Table 6: Fifth Sub-hypothesis Test conclusions

$SII_{it} = 4.14 - 6.83STLit - 1380ROA_{it} + 11.5SIZE_{it}$					
Meaningful level	t amount	Standard error	Coefficient	Independent variable	Dependent variable
0.034	-2.17	3.14	-6.83	Cash money	Institutional ownership
0.00	-4.51	305	-1380	Assets returns	
0.002	3.16	3.63	11.5	Corporation size	
0.911	0.111	37.06	4.14	Fixed amount	
0.351			Determination coefficient		
9.22			Fisher test		
0.00			Fisher meaningful level		
2.21			Watson Doorbin		

While Chow test is meaningful, so modulation methodology has been used to test research hypotheses. Data have been categorized to analyze in pudding way. Above table conclusions show the test squares to estimate model and vif amount indicated lack of any linear problem between independent variables.

Conclusions indicate that Watson Doorbin amount is 2.21, this conclusions describe that variables errors are independent from each other and there is no correlation between them. In the above table, determination coefficient amount is 0.351 which shows

that independent variable with 35.1 percent amount has been justified. In otherwise, anticipation ability of dependent variable is 35.1 percent. Meaningful level of Fisher test describes that model in this hypothesis is meaningful. Meaningful level of t-test for total short-term deposits of banks' acceptances variables is less than 0.050 (0.357). So, dependent variable has been affected by it. Finally, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted, there is a positive meaningful relationship between total short-term deposits of banks' acceptances and institutional ownership.

Table 7: All Hypotheses Conclusions

conclusions	Hypotheses interpretations	Hypotheses
H <sub>0</sub> is accepted	There is a positive meaningful relationship between foreign exchange and coins with institutional ownership.	First hypothesis
H <sub>0</sub> is accepted	There is a positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.	Second hypothesis
H <sub>0</sub> is accepted	There is a positive meaningful relationship between demand deposits in banks and institutional ownership.	Third hypothesis
H <sub>0</sub> is rejected	There is a positive meaningful relationship between people's short-term deposits in banks and institutional ownership.	Fourth hypothesis
H <sub>0</sub> is rejected	There is a positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership.	Fifth hypothesis

## 6. Discussion

### 6.1 First sub-hypothesis conclusions

For the first hypothesis, there is a positive meaningful relationship between foreign exchange and coins with institutional ownership, modulating and least squares methods have been used. Watson Doorbin test conclusions indicate that existence of correlation hypothesis among its statements is rejected, however, Fisher test conclusions describe that the model is credible to analyze its conclusions. Determination coefficient interprets that dependent variable (institutional ownership) has been justified about 30 percent. T-statistic conclusions of this hypothesis describes that amount of meaningful level for foreign exchange and coins is more than 0.050 (0.327), so foreign exchange and coins can't effect on institutional ownership. Finally, this hypothesis is rejected, there is no positive meaningful relationship between foreign exchange and coins with institutional ownership.

This hypothesis conclusions are related to Ahmadpoor (2011) conclusions, he found that lack of existence of monetary market and effective and suitable monetary instruments are two factors in inability of liquidity extra management in Islamic countries, this research concluded that some of the standards of monetary instruments after their adaptations with Islamic doctrine should be used for liquidity extra management in Islamic banking.

### 6.2 Second sub-hypothesis conclusions

For the second hypothesis, there is a positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership, modulating and least squares methods have been used. Watson Doorbin test conclusions indicate that existence of correlation hypothesis among its statements is rejected, however, Fisher test conclusions describe that the model is credible to analyze its conclusions. Determination coefficient interprets that dependent variable (institutional ownership) has been justified about 31percent. T-statistic conclusions of this hypothesis describes that amount of meaningful level for foreign exchange and coins is more than 0.050 (0.235), so short-term investments and partnership stocks for sale can't effect on institutional ownership. Finally, this hypothesis is rejected, there is no positive meaningful relationship between short-term investments and partnership stocks for sale with institutional ownership.

Institutional investors as main corporations' owners are responsible for effecting on corporations' managements to play effective roles on their investment effectiveness. This hypothesis can be related to Tesay and Goo (2007) conclusions, they investigated relationship between institutional ownership and corporations' operations from 1999 to 2003. They found that institutional investors in investigating corporations may help investments to decrease representative problems resulted from division management and ownership. Moreover, financial

institutes try to invest in big corporations with lower financial levers.

### 6.3 Third sub-hypothesis conclusions

For the third hypothesis, there is a positive meaningful relationship between demand deposits in banks and institutional ownership, modulating and least squares methods have been used. Watson Doorbin test conclusions indicate that existence of correlation hypothesis among its statements is rejected, however, Fisher test conclusions describe that the model is credible to analyze its conclusions. Determination coefficient interprets that dependent variable (institutional ownership) has been justified about 30percent. T-statistic conclusions of this hypothesis describes that amount of meaningful level for foreign exchange and coins is more than 0.050 (0.357), so demand deposits in banks can't effect on institutional ownership. Finally, this hypothesis is rejected, there is no positive meaningful relationship between demand deposits in banks and institutional ownership.

This hypothesis conclusions are related to Rifky (2010) conclusions, he investigated investors' liquidity behavior of Islamic banks through three motivations areas: opening account, behavior in response to deposit and decision for money removal. He found that Islamic banks should know their duties in educating banking contents based on Islamic rules because most of the liquidity problems of Islamic banks are resulted from investors' incorrect expectations.

### 6.4 Fourth sub-hypothesis conclusions

For the fourth hypothesis, there is a positive meaningful relationship between people's short-term investments in banks and institutional ownership, modulating and least squares methods have been used. Watson Doorbin test conclusions indicate that existence of correlation hypothesis among its statements is rejected, however, Fisher test conclusions describe that the model is credible to analyze its conclusions. Determination coefficient interprets that dependent variable (institutional ownership) has been justified about 34 percent. T-statistic conclusions of this hypothesis describes that amount of meaningful level for foreign exchange and coins is less than 0.050 (0.050), so people's short-term investments in bank scan effect on institutional ownership. Finally, this hypothesis is not rejected, there is a positive meaningful relationship between people's short-term investments in banks and institutional ownership. This hypothesis shows that increase in people's short-term investments in banks will lessen institutional ownership (no related research to this hypothesis has been found).

### 6.5 Fifth sub-hypothesis conclusions

For the fifth hypothesis, there is a positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership, modulating and least squares methods have been used. Watson Doorbin test conclusions

indicate that existence of correlation hypothesis among its statements is rejected, however, Fisher test conclusions describe that the model is credible to analyze its conclusions. Determination coefficient interprets that dependent variable (institutional ownership) has been justified about 35 percent. T-statistic conclusions of this hypothesis describes that amount of meaningful level for foreign exchange and coins is less than 0.050 (0.034), so total short-term loans of banks' acceptances can effect on institutional ownership. Finally, this hypothesis is not rejected, there is a positive meaningful relationship between total short-term loans of banks' acceptances and institutional ownership. This hypothesis shows that increase in total short-term loans of banks' acceptances will lessen institutional ownership (no related research to this hypothesis has been found).

## 7. Conclusions

Many researches have been done based on institutional ownership which indicated that these owners should concentrate on economical operations and avoid opportunist situations. Liquidity risk is one of the fundamental doctrine in management of financial operations, as indicated in recent credible crisis, lack of liquidity can fall biggest banks and financial institutes. Lack of assets sales possibilities with expected prices or suitable costs are very dangerous. Although, this research conclusions indicate that risk liquidity doesn't have more effect on institutional ownership kind. If it had effect, this effect would decrease institutional ownership.

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## THE RELATIONSHIP BETWEEN FAMILY COMMUNICATION PATTERNS WITH FEELINGS OF LONELINESS, RESPONSIBILITY AND PROSOCIAL BEHAVIOR AMONG MALE AND FEMALE ADOLESCENTS WITH VISUAL IMPAIRMENT

<sup>a</sup>AZAM FARAHBIDJARI, <sup>b</sup>FARIDEH TORABIMILANI,  
<sup>c</sup>SOGHRA AHMADI

<sup>a</sup> Assistant professor, Department of Psychology, Alzahra University, Tehran, Iran,

<sup>b</sup> Exceptional Children advice, Tehran, Iran,

<sup>c</sup> MSc in Clinical Psychology, Alzahra University, Tehran, Iran

Email: <sup>a</sup>gazam.farahadidijari@gmail.com,

<sup>b</sup>ffarhad.thorabimilani12@gmail.com, <sup>c</sup>s.ahmadi750@gmail.com

**Abstract:** The aim of the present study is to assess the relationship between family communication patterns and feeling of loneliness, responsibility and prosocial behavior with visually impairment the female and male adolescents. The descriptive correlational method is used in this study. The study sample visually impairment students, ages 12 to 18 years who are selected from Narjes and Shahid Mohebi schools. Data is revised by questionnaire Family communication patterns, Loneliness Scale, Adolescent Personal-Social Responsibility Questionnaire, Prosocial behavior Scale were Collected and analyzed by using test of correlation, T test and regression method. There is negative significant relationship between dialogues with loneliness and there is positive significant relationship between dialogue with responsibility and Prosocial behavior.

**Keywords** Family Communication Pattern, feelings of loneliness, responsibility, Prosocial behavior, visual impairment

### 1. Introduction

The importance of personality has been nowadays acknowledged the purpose of Family Communication Pattern is that Children learn how to communicate with others, interpret the behavior of others and experience emotions and communicate activities with others [1]. [2] They re-examined the communication patterns that had been studied by Mkld and Chfy and identified two important dimensions of the dialogue orientation and conformity orientation in the pattern of family relationships. The dialogue orientation refers to "the value of opportunity that families make it available to members of their families to act freely and safely in dialogues and discussions"[3].

Conformity orientation is defined as "how families emphasize on the similarity of ideas, values, and beliefs [4]. The combination of these two dimensions make four family communication styles that consists of: agreement family, pluralistic, protective and non-intervention [5]. Agreement families gain high rates of both dialogue and conformity. In these families, while individuals can express different opinions emphasize on agreement with each other on stress [6]. The pluralistic Family gain high score in dialogue orientation but do not earn a high score in conformity orientation. The characteristics of these families can note to the free conversations and comfort as well as protection of emotion [6]. Protective family orientation gains a low score in dialogue and gains a high score in conformity orientation. These families have too much emphasis on compliance and obedience to their parents [7]. In a study using census 60 impairment visual students with multi-stage sampling, 150 students of the ordinary boy were selected. Research instruments consist of Family Assessment and inventory accountability. For data analysis, Pearson correlation, independent t-test and Fisher's z test were used. And they concluded that performance of families were influential on the responsibility of blind teenagers [8]. Previous research results showed, there is no significant relationship between the use of strategies to strengthen the relationship and feel less alone among family members [9]. That alone is an unpleasant experience that includes the lack of [or lack of quality] certain relationships that lead to a reduction in health [10]. People who are lonely do not have the psychological well-being [11]. Loneliness defines as a lack of social closeness, and predictors of physical and mental health [12]. People who have close social relationships are both feeling good and behave well

and this is very useful for society [11]. People with mental and physical disabilities are more at risk of loneliness [13, 14, and 15]. Social proximity is a psychological need [16, 17], a nutrient for the body [18, 19].

The results of the study [20] showed that between Loneliness of deaf girls and boys that have Permissive parents there is a significant difference. Studies have shown that visual Impairment has profound effects on the daily lives of people with this disorder [21]. The problems of these people include psychological- social problems and constraints in everyday life such as commuting in and out of the home, social isolation [22] and loneliness [23].

Social isolation and lack of social protection of people with visual impairment lead to problems in the functioning of the mental, physical and social [24, 25]. The relationship plays an important role in the performance and function of the family. Families that are flexible as an institutional and their bases are on dialogue and autonomy than the families that obey their parents and close interaction and synergy of ideas and attitudes that cause stress in children, they cause that children have the ability to express their emotions and feeling. These children have the abilities of problem solving and decision-making [3, 26], have good self-esteem [27]. They deal with social challenges, conflicts in interpersonal relationships with peers and management ability and a strong sense of responsibility that all this leads to leading to positive communication. These people develop their social connections [28] and will not feel alone. The process of developing a sense of responsibility in social relations of children, usually occurs together with family members; In particular, in the relationship between parents, sisters and brothers, the quality of family have shown that have a big effect on responsibility and choices of daily life [30], and makes people to have ideal image of themselves [31].

Parents how has a free relationship to express positive emotions and warm relationship with their children, the interactions, communication and acceptance of excitement are at its peak. In such families, one is able to adjust the appropriate emotions and avoid negative emotions. In this communication, positive social feelings such as altruism and appreciation, facilitating social and dramatically promote and strengthen social behavior [32].

Tends to the Prosocial behavior such as altruism and gratitude is effective on having intimate relationships family members [33]. In terms of [34] Altruism is a voluntary behavior that aims to bring benefit to others without expectation of reward. Altruism parents positively associated with children's beneficial social behavior [35]. Word relationship between gender and altruism concluded that Gender does not cause differences in altruistic behavior and in this respect, there is no difference between the genders [36, 37]. People with the visual impairment may due to specific social conditions have higher than their peers to be lonely. As well as their families, by relying on a number of factors, try to not delegate many responsibilities to their children. This study aims to examine the importance of family relationships in reducing feelings of loneliness, increase and strengthen the sense of responsibility and Prosocial behavior among adolescents. Most done research in the domain of visual impairment, more personality characteristics compared with their peers and less to key factors such as the role of family and family relationships in reducing loneliness and increasing the sense of responsibility and community-oriented behavior is addressed. In the area of visual impairment either outside or inside the country, such study has been done. The purpose of this study is to investigate the relationship between family communication patterns with loneliness, responsibility, and Prosocial behavior among adolescents vision impairment.

## 2. Methodology

This research is descriptive and correlational. The study population included all 12 to 18-year-old adolescent students (first and second of high school) which as a visual impairment in Narjes and Shahid Mohebi schools in Tehran in the year 2016-2015. The number of 130 students were selected using census method [and some students due to problems such as deafness, lack of interest or lack of attendance at school do not participate in the test] of which 125 questionnaires were returned and analysis of subjects was answered based on 125 questionnaires. In order to collect data first, with confirmation of an exceptional management education and coordination with both school administrators, inventory of Family Communication Patterns, feeling of loneliness, responsibility, Prosocial behavior for each of the sample group is read verbally and they wrote their responses in Braille, then their responses was registered on answer sheets. For the analysis of test data correlation, independent t-test and regression analysis were used.

### 2.1 Revised Family Communication Patterns Inventory [RFCP]:

Inventory of Family Communication Patterns by [38] is made and has a 5-point of 26 items [strongly agree = 5, strongly disagree = 1] is in the context of family relationships. This tool forms the dialogue orientation and conformity orientation of Family respectively, 15 first propositions and 11 constitute the next proposition and the range of scores in the dialogue is between zero to 60, and the range of scores in conformity is between zero and 44. If both participants in the dialogue and conformity get a high score they are consensual Family And if they get a low score in the dialogue and get a high score in the conformity, belongs to a protective families and the participants that get a high score in dialogue and low score in conformity they are Pluralist and if get a low score in both they are promiscuous families [39].

Kvyrnr and Fitzpatrick tested reliability coefficient with test-retest method in the dialogue 0.99 and in conformity dimension reported 0.73. Coroshnia implemented the validity and reliability of these tools on 326 male and female high school student in the city of Shiraz that validity in the dialogue revealed a significant correlation 0.74 and he then acquired 0.49 conformity; and reliability of the instrument acquired in the dialogue and conformity alpha 0.87 [39].

### 2.2 Loneliness Scale:

Loneliness Scale, UCLA, first was formulated by [40]. Despite the high reliability and validity of this scale, Russell and colleagues to address some of the shortcomings revised this scale again in 1980. The scale once again in 1993 was revised by Russell. In the third edition statements and how to answer it became easier. Russell reported the alpha coefficient of this scale

0.94 [41]. Loneliness Scale has 20 questions which respondents should answer subject to any of the questions on a Likert scale of 4 degrees (never = 1, rarely = 2, often = 3, always = 4). The test scores range from [at least] 20 and the [maximum] is 80. The mean score is 50. This scale has 11 positive expressions and 9 negative expressions [42]. The scales of 1, 5, 6, 9, 10, 15, 16, 19 and 20 are scored inversely and scores on this scale indicate more loneliness. Russell and et al obtained Cronbach's alpha for this scale 0.96 and obtained the correlation of test 0.73 within two months later. Davarpanah in 1995 translated this scale into Persian, and obtain normative tables grades of loneliness on 1315 girls of 12 to 18-year-old from five districts of Tehran [42]. [41] Third Edition reliability is reported 0.88 and its validity reported 0.55.

### 2.3 Responsibility scale:

This scale has 50 items which was invented by Mr. Karami in Iran and was run in 2009 by (43) on 500 middle school students in Tehran schools and was standardized. This questionnaire is scored as follows; each phrase includes five options which are [strongly agree = 5 and strongly disagree = 1]. In this questionnaire the scoring is the reverse question contrary; means the questions, 6, 8, 10, 12, 15, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46 are to calculate the reliability of the test. The internal consistency by Cronbach's alpha for the whole questionnaire is obtained 0.91 by Nematı (2009). Also, he reported the correlation f each question with their whole concept of responsibility between 0.48 and 0.78 and most of them is reported high.

### 2.4 Prosocial behavior scale:

The Prosocial behavior scale [44] is a 16 questions scale which reflects the behavior and feeling of others in relation to partnership with others, helping them, care of others, empathy with others and the needs and requests. Each form factor encoded on the preference of the response scale (never) to five degrees [almost always] are accordingly. Kvprara in 2005 among 1278 male and 1296 female of this questionnaire is implemented that 71% of participants were high school students. He obtained for this scale the Cronbach's alpha 0.91 for all items. He also verified the correlation between the items through the open method calculated 0.59. This questionnaire in Iran is translated by [45]. According to him among a group of students in Tehran this scale has 0.91 validity for all item, and coloration of all the factors at around is 0.59. And also its reliability is obtained 0.91.

### 2.5 Findings of the research:

In the present study sample group of tables were used for the processing of descriptive findings including mean and standard deviation obtained by the sample group in each of the variables. To test the hypotheses independent t-test, correlation and regression analysis were used (table 1).

Table1. Mean and standard deviation obtained by the two groups in communication patterns, feelings of loneliness, responsibility and Community-oriented behavior

Variable name	The statistics of group	number	mean	standard deviation
dialogue	female	52	51.85	9.46
	male	73	48.52	10.93
Conformity	female	52	31.83	6.67
	male	73	34.49	8.09
Loneliness [general]	female	52	10.85	2.78
	male	73	11.06	2.09
Responsibility [general]	female	52	26.13	3.49
	male	73	24.95	3.31
Community-oriented behavior	female	52	52.54	9.04
	male	73	12.49	8.65

Statistical methods were used to test the three hypotheses. After reviewing normality of the data, to determine the relationship between the two variables is linear or not and finally deciding to use which one the correlation methods are used. The relationship between the two variables was analyzed by ANOVA method. The results showed. The results show that between the

relationship pattern and loneliness feeling there is a negative and significant relationship  $r = -0.28$  [at 99%] and responsibility and community-oriented behavior have a significant positive relationship with  $r = 0.04$  respectively (table 2).

Table 2. Comparison groups for changing patterns of communication, loneliness, accountability and community-oriented behavior

Variable name	amount of t	degree of freedom	significant level	Mean differences
Dialogue	1.77	123	0.08	3.32
Conformity	-1.88	123	0.04	-2.67
Self-management	0.83	1	0.41	1.01
Discipline	0.43	1	0.67	0.47
Legality	1.82	1	0.05	2.79
Bailment	2.47	1	0.03	0.44
Loyalty	3.70	1	0.00	1.78
Organization	0.46	1	0.65	0.33
Progressivism	0.16	1	0.88	0.03
Isolation	0.02	123	0.98	0.42
Sociability	-0.09	123	0.37	-0.98
Lack of close friend	-0.76	123	0.51	-0.12
Lack of loneliness	1.16	123	0.25	0.21
Responsibility	1.10	123	0.04	1.32
Community-oriented behavior	2.14	123	0.04	3.42

As can be seen in the following table according with t test with -1.88 in conformity variable shows significant differences between the two groups. The test results with the 1.77 do not show significant difference between two groups. Thus, according to the difference between the two groups in the Thus, according to the difference between the two groups in conformity reject the null hypothesis and research hypothesis is confirmed. The t-test does not show a significant difference between the two groups in term of Loneliness Scale. Therefore, the research hypothesis

cannot be confirmed. According to t-test with the 1.10 show differences, in terms of accountability with insurance 0.96 statistically is significant. Thus the research hypothesis is confirmed. The t-test with 2.14 shows that difference in terms of community-oriented behavior groups is statistically significant at the confidence of 0.96. So it does not show significant differences between the two groups variance. After running the test it can be seen that only dialogue dimension entered to the model no variable is excluded from the model (table 3).

Table 3: Investigating the statistical value of the predictor variables and the criterion

Variables in the model	model	The sum of squares	Degrees of freedom	Average of squares	F	The significance level	
Dialogue - feelings of loneliness	1	regression	131.30	1	131.30	27.94	0.00
		Remaining	578.12	123	4.70		
		Total	709.40	124			
Dialogue - responsibility	2	regression	120.95	1	120.95	11.15	0.00
		Remaining	50.13334	123	10.85		
		Total	1455.45	124			
Dialogue - Prosocial behavior	3	regression	126.45	1	126.95	6.15	0.01
		Remaining	6334.50	123	50.85		
		Total	6461.45	124			

According to the table above in the chi-F with the 94.27 and the degree of freedom 1 and 123, the linear relationship between dialogue and loneliness were significant in 0.00 levels. Also in test F with a 15.11 and degrees of freedom 1 and 123 linear relationship between dialogue and responsibility at the level of 0.00 was significant. The Prosocial behavior in the test variable with a value of 6.15 and a degree of freedom F 1 and 123, the linear relationship between dialogue and Prosocial behavior was significant at 0.01 level.

### 3. Discussion and Conclusion

The aim of this study is to investigate the relationship between family communication patterns with the feeling of loneliness, responsibility and Prosocial behavior among adolescents that have visual impairment. The results showed that there is negative and significant relationship between dialogue of the communication patterns and the feeling of loneliness,

responsibility and the community-oriented and positive relationship was observed behaviors and between the conformity of the overall communication patterns with any of the variables [feelings of loneliness, responsibility and community-oriented behavior] was not a significant relationship. According to the results, families in which the relationship between members is based on the dialogue can be known as people with a low level of loneliness, responsible and compassionate people, and altruism. Because these people in the family have the possibility to express feelings, having relationships and the ability to assume their roles and these families are ideal families and its members can know themselves as a useful and effective member. This study investigated the hypothesis that there is a relationship between family communication patterns with loneliness was approved. The results are consistent with other research.

The findings of the study on students and mothers of the students indicated that the more effect of degree of intimacy on the sense of isolation depends on the number of connections [46]. In

addition, there is a significant relationship between loneliness and emotional attachment [47].

The hypothesis that there is a relationship between family communication patterns and responsibility were approved. The results are consistent with other research. The results of the study [30] showed, in Pearson correlation test a significant relationship was found between the sense of responsibility and family relationship. The importance of family relationships in instilling a sense of responsibility in children in this study was quite clear among young Malaysians. These findings support the results of other studies.

[48], believes that parent families with high dialogue train children with social skills, management ability, and high leadership. The results of the study [49] showed that the more relationship between parents and adolescents warmer, the more juvenile responsibility will exist. Also, the hypothesis that there is a relationship between family communication patterns and behaviors Holistic was approved. The results are consistent with other research. When [50], interviewed with children and parents about the value of altruistic the child the altruistic behavior was evaluated, this species was observed that the socially beneficial behavior directly linked with family dialogue in the altruistic values.

In a study on the children [51], the researchers measured parenting styles with social beneficial behavior. They found that moral reasoning, Moral reasoning and social utility also useful real social behavior in families who have more education is less restricted. Another study in which the effect on the quality of family relationships and positioning siblings were 5 years old children's cognitive development, siblings are not significant impact position [52]. But studies have shown that older children adopted sibling position on socially beneficial behavior affects younger children. Studies also have suggested having a brother or sister is along with a greater understanding of other beliefs and emotions [53]. So we can say that parents that insist on obedience pay less attention to their children socially beneficial behavior.

The fourth hypothesis of the results also showed that, in terms of family communication patterns, in the next dialogue, girls achieved higher scores but this difference was not significant. In the conformity dimension, boys get a higher score than girls. In terms of responsibility and Prosocial behavior among boys and girls are different. In regard to the lonely boys got higher scores, but this difference was not significant. This may be due to the small sample group. In general, girls are more likely to mention their emotions and feelings than boys and they show that they are more sensitive to family issues; and more sympathetic. But other studies have shown, women feel lonelier than men [54]. The number of social networks effect on loneliness of people [55]. In another study based on solidarity and models, it seems that parents that in the teenage period of their children, especially in childhood, express more negative emotions in the house, they will have more compassion girls and the relationship between emotional expressions of compassion in the girls' parents and tend change over time. Perhaps the girls after puberty, their parents are less affected by negative emotional expression [56]. Other researchers have found a positive relationship between emotional expression and negative childhood outcomes [57] they found that the positive and negative expression, positively is associated with social behaviors; this relationship was positive for both girls and boys. Parents negative emotions, predicted social benefits behavior and sympathy only for women, perhaps this is due to their greater ability to control their emotions and thus more tolerable of the negative feelings [58].

Also in the fifth hypothesis results showed that family communication patterns (the dialogue dimension) can be a predictor of loneliness, responsibility, and community-oriented behavior. In line with this study [58] in their study suggested that

perhaps the best measure of the effectiveness of the parents' emotional expression and function of the relationship between parent and child. The parental emotions of father and mother aren't only reflect the quality of the relationship parent - child but also to teach children about their experiences and feelings. We can say that educational methods that rely on parents to train their children, dialogue is communication pattern makes verbal skills, communication, and social skills children be strengthened; and children feel good about themselves.

With expanding communication skills in family gradually children in social communication acquire needed skills this makes they have both quantitatively and qualitatively adequate satisfaction of their communications and they feel less lonely. In addition, parents with identifying their expectations of their children establish the personal and social responsibility in their foundations. The sense of responsibility in children and adolescents cause they became aware of needs of parents, family members, friends and other people and become able to respond to the needs of each other.

As the results of this study indicate that the dialogue can reduce feelings of loneliness

And strengthen the sense of responsibility and community-oriented behavior. Among the limitations of this study can be noted:

1. Limitation of society and lack of access to the larger society [at least a few school] due to wider generalizations results.
2. The lack of random sampling of students due to the small population size, and especially since the number of students has been limited. It is suggested that future research using positive psychology done with children and adolescents with visual impairment.

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## STUDY THE RELATIONSHIP BETWEEN SPORT SERVICE QUALITY PERCEPTION WITH ECONOMIC DEVELOPMENT AND SATISFACTION OF SPORT TOURISTS IN ISFAHAN PROVINCE

<sup>a</sup>MASOUMEH HOSSAINI, <sup>b</sup>ABOLFAZL FARAHANI,  
<sup>c</sup>FATEMEH HAJI ESMAEILI

<sup>a</sup> Assistant Professor of Tehran University, Tehran, Iran,

<sup>b</sup> Assistant Professor of Tehran University, Tehran, Iran,

<sup>c</sup> M.A. Student on management of sports organizations and marketing in sport, Tehran University

Email: <sup>a</sup>masumeh.hosseini.23@gmail.com,

<sup>b</sup>abolfazl.farahani@gmail.com, <sup>c</sup>fatemehesmaili82@yahoo.com

**Abstract:** This study aims to investigate the relationship between sport service quality perception with economic development and satisfaction of sport tourists in Isfahan province. Reliability of questionnaire was estimated and obtained by Cronbach's alpha for the whole questionnaire. Data analysis was performed in both descriptive (frequency and frequency percentage) and inferential statistics (multiple correlation coefficient, simultaneous regression analysis, Kolmogorov-Smirnov test, Pearson correlation coefficient) using SPSS software. The results showed that there is a significant relationship between sport service quality with economic development and satisfaction of sport tourists in Isfahan province.

**Keywords:** service quality, economic development, satisfaction, sport

### 1. Introduction

Iran needs to use all its potential and existing facilities and capabilities in order to create a comprehensive and sustainable development as well as making new sources of revenue instead of relying on oil supplies. One of these potential existing facilities is tourism in the country, because Iran has a special position in the world in terms of tourist attractions. Iran is one of the most spectacular countries in the world and it is among the first ten countries in the world in terms of tourist attractions and it is in the ranking of top five first countries in the world in terms of tourism diversity and among the three first countries in the world based on crafts diversity (site of Iran tourism information, 2009). Isfahan province is the most attractive regions in Iran and has the first rank in attracting tourists and the number of tourist monuments and landmarks. Isfahan has been considered an appropriate place for the onset of manifestations of Iranian culture and civilization for a long time due to favorable natural conditions, located in the geographical center of the country and the possibilities to communicate with other parts of the country (Zirakbash, 2006, p131). Having beautiful landscapes and abundant and unparalleled tourist attractions lead to ask this question whether background of economic growth and development of this province and therefore country can be provided by development of tourism industry in this region based on capacities of this province?

In recent years, tourism has become a competitive industry and countries have become more amenable to new approaches and innovation in this industry in order to earn more money. Performing sport competitions such as Olympic is one of the new ways to attract tourists and indicating culture of a country to the world. Among them, participation in the active and passive different sport movements through organization of economic-commercial factors from the origin country to the destination country and happened travels are called sport tourism which has been turned to the one of the main subsets of tourist, in recent years (Hadavi et al, 2011).

Estimations indicate that more than 70 million people, in 2004, have traveled in order to participate in sports, especially, watch these tournaments (Mojtabavi, 2008). The studies show regions where have access to the sea, beaches and mountains with a variety of climates can be an appropriate place for the development of sports tourism. Regions with steppes and extensive plains and warm climates are proper for the

development of sports such as golf, baseball and polo, etc. Regions with mountains and snow are favorable for the development of mountain and winter sports such as skiing and mountaineering, etc. There are various forms of tourism. Sports tourism is one of them and it has the highest growth among different sectors of tourism (Ehsani et al, 2010). Sports tourism, as tourism in general, has different definitions from different viewpoints of experts. These definitions have many similar and opposite aspects which make a problem for getting a special concept. Gibson offers one of the definitions in the field of sport tourism: Sports tourism is a leisure travel that people leave their settlements in order to engage in physical activities, watch physical activities and .... It must be understood that the quality of service and product play the main role in satisfaction or dissatisfaction of the clients. Therefore, leading and sublime organizations always are seeking to get ensure about their clients' satisfaction (Salehi et al, 2011). Customers' satisfaction is associated closely with the measurement of service quality. Satisfaction is feeling or attitude with which is encountered after receiving services. However, a review of existing literature on the subject suggests that understanding the relationship between customers' satisfaction and perceived service quality is still a challenging issue. The research current believes that customer satisfaction generally comes from the quality of received service. In addition, it should be noted that high clients' satisfaction and high perceived quality of service cause to return clients and customers. Mohammadpour express sports tourism as: Sports tourism is considered as a part of tourism which has been existed by combination of sport and tourism and it being turned and is growing quickly as a big and independent industry. Khatibzadeh knows quality of services and satisfaction of tourists as important issues in tourism policies, with emphasis on satisfaction and return willingness of sport tourists that addressing these issues lead to develop tourism and sport tourism. Karimi, about the challenges of tourism development, considers creating job opportunities, reduction of poverty, improvement of living standards of the population and development of infrastructures as the impacts of tourism in the cities. Because Isfahan province has a great capacity in the field of tourism attraction in general and tourism associated with sporting events in particular and effective factors on sport tourists' satisfaction and presence of sport tourists in the international sport events has not been identified in Isfahan and none of the researchers pay attention to the economic development that can be obtained by presence of sport tourists, thus, the researcher plans to investigate the relationship between perceived service quality with the economic development and satisfaction of the sport tourists of Isfahan province and investigate factors which cause to increase tourists' satisfaction and economic development of Isfahan province.

The researcher wants to answer to the following questions: Is there a significant relationship between the perception of service quality and economic development? Is there a significant relationship between the perception of service quality and sport tourists' satisfaction?

### 2. Method

The present study is applied based on its aim and it is descriptive, of correlational type, based on data collection, because the relationship between the perception of service quality and economic development and sport tourists' satisfaction in Isfahan province has been studied using questionnaire without manipulation in testees' comments. According to the aim of this study which is investigating the relationship between the perception of service quality with economic development and sport tourists' satisfaction in Isfahan province, the method is descriptive - correlational of survey branch which is collected by documentary method of the

theoretical foundations and survey method is used to collect data and information.

The study population consisted of all people as sport tourists who take part in sport-recreational events or activities in Isfahan province during considered time interval who include 50 footballers and 350 karates by inquiry of department of Isfahan Physical Education. The sampling method is holistic. Due to the limitation of the statistical population, all persons who travel to Isfahan province during considered time interval to participate in sport-recreational events or activities are considered as statistical samples who are 50 footballers and 350 karates. Researcher-made questionnaire (study instrument) was given to them. This questionnaire consists of two parts. First part includes 5 questions about demographic characteristics of respondents and second part consists of 16 items about effective factor on satisfaction about how service is provided and service quality in Isfahan.

Table 1. Distribution of questionnaire questions in triple areas

Area	Number	Question No.
Perception of quality	9	1, 2, 3, 4, 5, 6, 7, 8, 9
Economic development	4	10, 11, 12, 13
Tourists' satisfaction	3	14, 15, 16

In order to evaluate the basic components of the research, the five-point Likert scale has been used because this fact that each of the components includes a number of items. In this scale, the weights of 1 to 5 are given to answers arbitrarily. The questionnaire indexing is based on above as follows: (strongly disagree, disagree, neutral, agree, and strongly agree)

For validity, the content validity of preliminary questionnaire was approved by the respectable supervisor professor and some professors of faculty after considering their views. Its reliability was studied by Cronbach's alpha test. The results of alpha test indicate that the obtained amount for the whole questionnaire is 0.959 that shows questionnaire has high reliable items. Alpha amounts for dimensions of questionnaire are as following:

Table 2. Alpha amounts for questionnaire dimensions

Variables	Number of items	Alpha amount
Perception of quality	9	0.918
Economic development	4	0.915
Tourists' satisfaction	3	0.838
Total alpha	16	0.959

Descriptive and inferential statistical indexes have been used in SPSS software environment in order to analyze data. In descriptive statistics level, frequency, average percent and standard deviation have been used to describe collected realities. Pearson correlation coefficient and regression analysis have been used in inferential statistics.

### 3. Results

The results of demographic questionnaire showed the highest percent of respondents' age (50.8) is in the group below the twenty-year-old age and the lowest percentage of respondents' age (1.3) is in the group of forty years old and more.

The highest percentage of respondents' educational major is non-physical education (66.8) and the lowest of them is physical education (29).

The highest percentage of respondents' educational license is under-diploma (35.8) and the highest one is master degree (3.8).

The highest percentage of presence in sport events related to the group is 1 to 2 times (34.5) and the lowest one related to the group is 6 to 12 times (14).

The highest percentage of respondents is single (68.5) and others are married (28.8).

Also, variable of "quality of perception" has the mean of 31.39 and standard deviation of 9.382 which the lowest score of the answer is to this item of (responsible for performing these competitions supplies the needs of tourists) with the mean of 3.31 and the highest of them is the item of (tournaments are held at the appropriate time) with the mean of 3.65.

Variable of "economic development" has the mean of 14.46 and standard deviation equal to 4.341 which the lowest score of the answer is to this item of (these tournaments are effective in creating new jobs in the sport fields) with the mean of 3.5 and the highest of them is the item of (performing these tournaments cause to increase shopping in Isfahanheld at the appropriate time) with the mean of 3.64.

Also, variable of "tourists' satisfaction" has the mean of 11.12 and standard deviation of 3.83 which the lowest score of the answer is to this item of (in general, I am satisfied with the holding of this tournament) with the mean of 3.51 and the highest of them is the item of (I think making decision for presence in these tournaments is correct) with the mean of 3.77.

The results of Kolmogorov-Smirnov test show that data distribution of three variables is normal.

Table (3). Normality test of study variables' data

components	Perception of quality	Economic development	satisfaction
mean	31.39	14.46	11.12
standard deviation	9.382	4.341	3.836
Kolmogorov-Smirnov test	0.115	0.126	0.174
significance level	0.09	0.10	0.156

### 3.1 Study findings with separation of hypotheses

The first hypothesis is: there is a significant relationship between perception of sport service quality and economic development and sport tourists' satisfaction in Isfahan province. The results indicate that the best predictor of the perception of sport service quality has been satisfaction in the first step and the economic development in the second one among the studied variables in the regression. According to the results of stepwise regression, the relationship between perception of sport service quality and economic development and sport tourists' satisfaction in Isfahan province has been significant. Therefore, in the first step, coefficient of satisfaction component explains 61.9% of variance of sport service quality perception and, in the second step, coefficient of economic development component explains 72.9% of variance of sport service quality perception. Observed F has been significant in  $p < 0.01$  level. Thus, regression is generalizable to the statistical population.

For one unit increase in satisfaction component, beta coefficient increases the perception of sport service quality to 0.472 units and for one unit increase in economic development component, beta coefficient increases the perception of sport service quality to 0.457 units.

The equation of the main hypothesis is presented as follow:

The perception of sport service quality = (0.472) satisfaction + (0.457) economic development

The first subsidiary hypothesis is: there is a significant relationship between the perception of sport service quality and economic development in Isfahan province. The results show that the correlation coefficient between the perception of sport service quality and economic development in Isfahan province is significant. That is, there is a significant relationship between the perception of sport service quality and economic development in Isfahan province ( $r=0.782$ ,  $p<0.05$ ). According to coefficient of determination ( $r^2$ ) 1.6 percent of the variance, perception of sport service quality and economic development has been common. Therefore, the first hypothesis is that there is a relationship between the perception of sport service quality and economic development is confirmed.

The second subsidiary hypothesis is: there is a significant relationship between the perception of sport service quality and sport tourists' satisfaction in Isfahan province. The results show that the correlation coefficient between the perception of sport service quality and sport tourists' satisfaction in Isfahan province is significant. That is, there is a significant relationship between the perception of sport service quality and sport tourists' satisfaction in Isfahan province ( $r=0.786$ ,  $p<0.05$ ). According to coefficient of determination ( $r^2$ ) 1.6 percent of the variance, perception of sport service quality and sport tourists' satisfaction has been common. Therefore, the second hypothesis is that there is a relationship between the perception of sport service quality and sport tourists' satisfaction is confirmed.

#### 4. Discussion

The main hypothesis: Due to the significance level ( $p<0.05$ ) which is equal to 0.001 and the coefficient value of (0.61) and according to the results of inferential test relating to the first hypothesis, about the test of study the relationship of "perception of sport service quality with economic development and sport tourists' satisfaction in Isfahan "was confirmed.

The findings of this part were consistent with the results of Khosravi's (2005) study. The results of Khosravian's study shows that among making security, informing people, correct propaganda, coordinating organizations related to tourism affairs, expanding transportation, security has greatest impact on the growth of tourism industry development. But it was not consistent with the Taji's (2005) study. He writes: tourism play a poor role in the economic and social development of villages of this region, despite their very high capacities for tourism.

Also, the Salehi's (2005) findings are consistent with his results and indicate that economists know the tourism industry as the third dynamic and growing economic phenomenon. Also, it is consistent with Hanygan's (1994) studies. He concluded that income and employment was got by tourist were increased and areas which have position and archaism have high development.

In general, the results in the area of the relationship between the perception of sport service quality with economic development and sport tourists' satisfaction indicate that sport service quality can cause to develop economic and tourism can increase occupation and help to develop economic. Also, service quality and sport security can cause to satisfy tourists and thus attract them. The results indicate that sport service quality is an

effective dimension on economic development and satisfaction of tourists.

First hypothesis: According to the significance level ( $p<0.05$ ) which is equal to 0.001 and the coefficient value of (0.78) and according to the results of inferential test relating to the second hypothesis, about the test of study the relationship of "perception of sport service quality and economic development in Isfahan province" was confirmed.

The findings of this part were consistent with the results of Firouzj'ai's (2005) study. His results show that tourism has positive economic social effects and consequences such as creating jobs, increase of income levels and increase of awareness level of people.

But the results of the current hypothesis were not consistent with Valadi's (2008) study; Valadi's results show that 52 percent of villagers considered tourism was ineffective in their lives.

It is also consistent with Kiaipoor's (2010) findings. His results indicate that the process of creating the tourism phenomenon and tourism industry development which in fact present travelling as a commodity causes to tourism industry is defined by various components in different dimensions. Attractions and facilities are two important components in the formation of tourism industry in rural areas.

Also, it is consistent with Zeitonali et al., (2011) studies. They also concluded that there are a significant relationship between the development of sport tourism development and income and creating job.

It is consistent with Rahimian's (2011) findings. She points out that one of the most prosperous industries in the world and the main body of economy for some countries is sport tourism that is an important source of foreign exchange and financial earnings, producing economy and creating job opportunities.

The study was also consistent with Um and Crompton (1992); their results show that also it was consistent with Hanygan's (1994) results; his income and employment resulting from tourism have been increased and the growth of areas with position and archaism in tourism have become more.

In general, the results of these researches, about the relationship between the perception of sport service quality and economic development, show that sport service quality, and lower costs, life security which can be related to economic development and also better sport service can cause to improve economy.

The results of this research indicate that the perception of sport service quality is impressive on economic development.

Second hypothesis: According to the significance level ( $p<0.05$ ) which is equal to 0.001 and the coefficient value of (0.78) and according to the results of inferential test relating to the third hypothesis, about the test of study the relationship of "perception of sport service quality and tourists' satisfaction in Isfahan province" was confirmed.

The findings of this part were consistent with the results of Khatibzadeh's (2010) study. His results show that tourism has positive economic social effects and consequences such as creating jobs, increase of income levels and increase of awareness level of people. Results of his studies show that there is a significant relationship between "sport tourism service quality" and "satisfaction" and "sport tourists' desire to return". Also, "competition quality" has a significant relationship with "sport tourism service quality". Therefore, it can be said many factors which influence on sport tourism service quality, sport

tourists' satisfaction and willingness to return should be considered.

It is also consistent with Levan B.'s (2012) findings. The results of his research show that entry of sport tourists causes officials of sport tourists do something that leads to be welcomed by sport tourists such as bikers, climbers, and the riders.

## 5. Conclusion

Generally, the results of these studies in the area of the relationship between perception of service quality and the sport tourists' satisfaction indicate that possibilities, their quality, reduction of tourism costs, geographical location and so on cause to make satisfaction and thus attract sport tourists.

The results of this research indicate that the perception of sport service quality is one the dimensions which is effective on sport tourists' satisfaction.

Today, the services are mentioned as the heart of making value. Other services are not limited to banking services, health and educational services, but the most products that are purchased have some elements of services. In fact, the most goods rely on service-based activities in order to create excellence and competition. When a customer buys an item, he/she purchases not only goods but also comprehensive package of services. For example, television is along with other services like delivery, insurance and guarantees. In recent years, the services sector has been faced with great interest. Initially, economists paid little attention to service. But gradually realize the importance of services so that Marshall mentioned in the late 19th century a person who provides a service similar to a person who produces a tangible product and this service can offer utility to the recipient. In fact, in Marshall's view, what a producer of agricultural products does is valuable like what a farmer does. The west world has experienced service economy for more than two decades. Today, all manufacturers of goods offer several services to their clients.

Sport tourism is a service industry and it is mainly affected by the quality of offered services. Quality of service is considered as a key concept in organizations related to tourism. Also, quality of services is directly associated with the return of tourists and results in more profits for organizations.

Acceptance of sport centers with combination of the attraction of the destination and hierarchy has many management applications. Researchers in various countries such as Spain, Australia, India, Greece and South Africa, etc. have studied various natural-sport attractions of that country and investigated about the most important natural-sport attractions in their countries that have more diversity and extension and perhaps cause to attract more sport tourists to those countries. They have studied the effect of this kind of sport tourism, too.

Qiu mentions that some countries in North Africa such as Morocco, Tunisia, Egypt and other countries in the continent such as Kenya and South Africa have substantially increased duration, season and revenue of tourism using the opportunities for exploiting sport tourism based on natural-sport attractions.

Sport tourism is an industry that has emerged from the combination of two tourism and sport industries. In other words, sport is one of the important activities of tourists during tourism. Although the tourism industry and sport are both important issues but their interaction is not considered in the past. Travel and tourism industry is considered as the biggest and most renowned industry in the world.

Quality is not only related to private companies and organizations. According to several reasons, maintaining and increasing market share, attracting visitors, more profits, and many destinations, are up to date quality tourism policy, in particular, those that operate in competitive markets (due to price sensitivity and in the high level of replacement). In general, the characteristics of tourism as an

intangible service (intangible), heterogeneity (heterogeneity), imperishable, simultaneous production and consumption, the contradictory nature of tourism experience make significant challenges in the successful implementation of procedures and quality management policies. Human Factors in services, particularly the behavior of service providers in the field of customer's expectations, is one of the essential aspects of high quality management whose control is still hard.

Because of today human spiritual-mental need to entertainment in nature and sports which can be performed in a natural area, with scheduled planning and using the talent of the different regions and considering different conditions, we can step in development of economic aims and creating and job and make appropriate environments for tourists. Planning about these aspects and guiding sport tourists to these attractions will be very useful and prevent wasting time, resources, budget and human and material resources.

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## EXAMINED THE EFFECTIVENESS OF CBT (COGNITIVE BEHAVIOR THERAPY) ON ANXIETY AND ANXIETY IN CHILDREN WITH NOCTURNAL ENURESIS

<sup>a</sup>KOSAR BARDIDEH, <sup>b</sup>FATEMEH BARDIDEH, <sup>c</sup>KEIVAN KAKABARAE

<sup>a</sup>Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

<sup>b</sup>Department of Plant Breeding, Agriculture Faculty, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

<sup>c</sup>Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Email: <sup>a</sup>kosar.2bardideh@gmail.com,

<sup>b</sup>fateme.bardidehfb@gmail.com,

<sup>c</sup>keivankakabaraee.kk@gmail.com

### Abstract

In this study we assessed the effectiveness of "Cognitive behavioral therapy" on stress and anxiety in children with nocturia. In this semi-structured study with pre-post assessment and analysis, 30 kids were analyzed and chosen based on inclusion criteria. Kids were assessed using "penn state worry questionnaire for children", "revised children's anxiety and anxiety scale" and "positive and negative affect schedule" on before-after sections. The resulting data were analyzed using descriptive statistics and analysis of covariance. The experiment group showed significant decrease in stress, anxiety, worry and negative feelings which proves the study's hypothesis. Therefore, according to results the cognitive behavioral therapy is effective on stress and anxiety and can be used as a harmless treatment in group training format on children.

Keywords: nocturnal enuresis, anxiety, Kendall cognitive-behavioral

### 1 Introduction

Enuresis is the involuntary repulsion of urine during sleep after the age at which bladder control should be achieved. This ability usually will obtain at three years old. This problem is divided into two types. In primary or continuous enuresis control has not been achieved at any time for a period of at least 6 months to a year and in the secondary type of bladder control the aforementioned Braymedet obtain and will be lost again (Tajri & et al, 2003). So that anxiety and anxiety in children with enuresis are among common psychiatric disorders. There is Anxiety as a part of every human life, in the extent of moderation in all people. And this extent is considered as an adapted response in such a way that we can say: "If there was no anxiety we would all go to sleep behind our desks." Lack of anxiety may face us with many problems and risks. So, anxiety as part of life of every human being constitutes one of the components of his personality structure. And from this point is that some of the anxieties of childhood and adolescence can be considered normalized and accepted their positive effect on the process of transformation. In other words, we can say that anxiety in some situations creates construction and creativity in people and vice versa, there is also a morbid anxiety. Because the extent of anxiety can be productive and useful, and most people have to experience, But this case may have a chronic and continuous aspects that in this case, not only response cannot considered adapted, But also it should be considered as a source of failure and desperation of person that deprives a person of major part of his facilities. And create a wide range of anxiety disorders that are widespread of recognized disorders of body to unjustified fears and fearfulness (Dadsetan, 1996). (Effert & Huberty, 1990) examined Anxiety in the context of their multi-level behavioral theory. They emphasized on two main themes:

1-Underpinning of the anxiety is a central excitedly response.

2-anxiety may be learned through aversion condition and in such a symbolic way through the language.

In their point of view, the experience of hit and damage is not essential for fear, but also, the fear may easily create through negative excitement that are invoking by words. Words that are evoke with certain situations, for example, the words and the

negative thoughts may be evoked with the pictures of fearfulness.

Thus, they describe a kind of self-conditioning. The importance of their theory is that they depict a transplant and clear relationship between cognitive theory and the theory of conditioning. (Khodapanahi, 2006)

(Huberty, 2010) believes while the anxiety symptoms are different in the type of kind and severity in people and different situations, but some of symptoms are common in the all anxiety disorders and appear in cognitive, behavioral and physical responses. All of these symptoms are not seen in all people or to the same extent.

On the one hand, all people sometimes indicate some of these symptoms but this is not necessarily mean that there is anxiety and will lead to problems. Since many children are suffering from anxiety disorders, the clinical treatments are not able to cover all of them, So, the planners have to invest more in prevention part so that less children experience problematic anxiety.

(Schwartz & wadel, 2012) There are many treatment programs for improving anxiety disorders that all of them have cognitive-behavioral basic. In the field of treatment, cognitive - behavioral method has taken lead generation beyond of other approaches. It is more than twenty years that the amount of effectiveness of cognitive-behavioral therapy has been proven in the treatment of childhood disorders. Cognitive- behavioral therapy is a term to describe psychotherapist's interventions which is aimed to reducing psychological discomforts and maladaptive behavior by changing the cognitive processes. Cognitive- behavioral therapy is based on fundamental assumption that feeling and behavior are largely the products of cognition. So we can created changes in thinking with cognitive and behavioral interventions. Thus, Cognitive- behavioral therapy contains the main elements of both cognitive and behavioral theories. Cognitive psychologists are concerned the way of earning information from the world, a way of unveiling this information and turn it into knowledge, the way of store it and the way of use it in order to directing to our attention and behavior. Cognitive Psychology contains the range of psychological processes.

It covers all fields of behavior from feelings to perception, recognition of designs, attention, learning, memory, concept formation, thinking, guided imagery, remembering, language, excitements and the processes of growth to help to understand the nature of the mind of thought. The idea that the way of our thinking effects on our emotions plays an important role in the treatment of anxiety. In addition to this, the way of our action in a position depends on the consequences that are followed behavior; In other words, if an unpleasant event happens after a behavior, that behavior is more likely to reduce or even stop (Kandall et al 2006). In recent years, it has been raising the tendency toward the use of Cognitive- behavioral therapy for working with children and adolescents. The results of conducted research indicate that this method is effective and useful in the treatment of generalized anxiety disorders, depressive disorders, interpersonal problems and social phobia, morbid fears, refusing to go to school, sexual abuse and in pain management.

So in this study, we are examining the effectiveness of cognitive behavioral therapy on anxiety and anxiety in children with enuresis and attempt to answer to this question that whether cognitive behavioral therapy is effective to reduce anxiety in children with enuresis or not?

### 2 Methodology

Methodology is quasi-experimental with pre-test and post-test scheme with a control group.

The statistical population of present study includes Children with enuresis referring to outpatient clinics of Urology Specialists in 2015 and the first half of 2016 in Kermanshah city. The total number of participants in this study was 30 children admitted to the pediatric urology specialists in Kermanshah that after randomly selection, 15 individuals were placed in control group and 15 individuals were in intervention group. Sampling for children to targeted participate in the study was based on inclusion criteria. After selecting the case study sample, they randomly were placed into two groups: Control and alternative. In the pilot studies minimum samples of 15 people is appropriate. (Delavare, 2001)

Exclusion criteria including the following cases: lack of chronic diseases, lack of bladder or kidney health problems in children, lack of specific medication, no history of traumatic experiences in the past six months, the primary nocturnal enuresis

### 3 Research Tools

#### A: Penn State-form of children Worry Questionnaire (PSWQ-C) (Korpita et al. 1991).

This questionnaire includes 14 items of self-report type.

The questionnaire has used to worry measurement in the children and is useful tool for comprehensive diagnosis and assessment in children between 6 and 18 years old. Questionnaire materials is graded from zero to three as a 4-degree scale. The total test score is between zero and 42 and with the higher total score in children is a sign of greater concern. The convergent and diagnostic and reliability validity of questionnaires has been approved in the study of Mofrad, Atef and Bayanzadeh (2000) (Bakhtiari, et al., 2013).

#### 3.1 Revised child anxiety and anxiety scale (RCADS)

This scale of self-report questionnaire is for children and adolescents from 8 to 18 years old with 47 items and has six scales for measuring separation anxiety disorder, social phobia, generalized anxiety disorder, panic disorder, obsession, incontinent and major anxiety disorder. At this scale the respondent should express that whatever every item is true on him/her due to their usual feelings. In a study on clinical and non-clinical samples good psychometric properties has been reported to this questionnaire. Two specific strong point of this scale are: have several scales is related to the numerous diagnosing anxiety disorder that can be helpful in determining for treatment, the second that has the short scale for anxiety to be evaluated the possibility of anxiety (Chorpita 2011).

#### 3.2 Positive and Negative Affect Scale for Children PANAS-C

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Table 1: content of cognitive behavioral therapy sessions for treatment of children

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Data analysis in the descriptive part with mean and standard deviation. In the second part ANCOVA analysis of covariance was used to testing hypotheses and control of the effect of pre-

test in experimental and control groups. Data were analyzed by using 23-SPSS statistical software.

#### 4 Results

Table 2: Replacing the participants in groups

Group	Number	Percentage
Invention	15	50
Control	15	50
Total	30	100

Findings in Table 2-9 show that in this study, 30 children were present with nocturnal enuresis that were replaced in both groups

(intervention and control) and in each group 15 people has been located.

Table 3: Mean and standard deviation of scores participants in the positive and negative assessment questionnaire for children

Variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Positive affection	30	25	43	32	4.938	0.186 -0.060
Negative affection	30	41	58	51.10	4.78	0.488 -0.439

As can be seen in the table mean and standard deviation positive affection among participants was equal to the  $32.200 \pm 4.938$ .

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Table 4: Mean  $\pm$  SD of anxiety and anxiety

Variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Anxiety	30	44	69	55.53	6.67	0.186

The mean of anxiety and anxiety of participants was equal to 55.53 years old with standard deviation of 6.67.

Table 5: Mean  $\pm$  SD of concern PSQW

variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Concern	30	28	40	34.23	2.95	0.322

The average concern score of participants was equal to 34.23 years with a standard deviation of 2.95.

**- Research hypothesis:** there is a significant difference between anxiety scores in the intervention and control group after the intervention step

In all variables skewness and kurtosis is between -2 and +2, which represents the normal distribution samples.

Table 6: descriptive data of anxiety variable

	Group	Mean	Sd
Pre test	Intervention group	58.80	6.97
	Control group	53.60	6.60
Post test	Intervention group	50.530	5.659
	Control group	54.533	6.42

As can be seen in the total average score of anxiety participants in the control group was equal to ( $6.28 \pm 53.60$ ). This mean and standard deviation in the intervention group was equal to ( $5.65 \pm 58.80$ ). While the mean of the control group has not changed significantly ( $6.42 \pm 54.53$ ) it seems a significant change has

occurred in the intervention group ( $5.65 \pm 50.530$ ) that this difference is measured by testing significant covariance. Covariance analysis was carried out on the data normality in descriptive part and homogeneity and Levin test also has come in this part.

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Total	83938.00	30				

The results indicate that after removing the effect of pre-test, the two interventions and control groups are significantly different

with F equal to 19.12 at level of 0.000. Eta coefficient is equal 0.415 which indicates the effectiveness of the intervention.

Table 9: paired Comparison of intervention and control groups in in anxiety post-test step

groups	Mean difference	standard error	Significant	The difference in the confidence level of 92%	
				Up	Down
Control	7.4	1.692	0.000	10.87	-3.928

## 5 Discussion

The research hypothesis was confirmed based on this that cognitive-behavioral therapy reduces anxiety in children with enuresis which is aligned with the results of (Volek & et al. 2015). They conducted a study to evaluate the effectiveness of psychotherapy on anxiety disorder and anxiety in children.

66 participants were participated in the cognitive behavioral therapy sessions. (Keyn & et al., 2015) Also, was conducted a study to evaluate the effectiveness of method of coping cat therapy (Cognitive therapy Kendal) on anxiety reduction in children with autism syndrome. For this purpose, there were 22 children between the ages of 8-14 years that an average of their IQ was 70. These children were placed randomly in the group and were treated with cognitive-behavioral therapy for sixteen sessions. The results indicate that cognitive-behavioral therapy has been effective on anxiety of these children in comparison with control group and this effect was remained in participants for two months.

Anxiety and anxiety were detected based on diagnostic criteria and questionnaires. The Results indicated that those who had recently thought about suicide have responded to the treatment more than others. These results finally indicated that anxiety and anxiety of children have been reduced. So, this method of treatment was detected appropriate to reduce psychological problems of children. This means that children in the intervention group significantly after the intervention were felt less anxiety and showed less anxiety symptoms compared to the control group. This finding is consistent with the results of other researches that have been conducted in this field. (Basak nejad & et al, 2011), Puleo et al., (2011), Herbert et al., (2009) Ehn et al., (2013) 30 girls of 11 to 13 years old that had been measured by using the structured diagnostic Interview and Children Anxiety Scale, divided randomly in two groups of randomized and experimental. Then, cognitive behavioral therapy group was conducted on them by method of coping with anxiety. The obtained results of analysis of single variable covariance indicated that there is a significant difference between the scores of posttest anxiety of two randomized and experimental groups that were still going on after a month of treatment effect.

In another research that conducted recently by (Zarghami and et al., 2015) aimed to treating children of 8-10 years also, had been used of cognitive therapy method based on Kendal program. In this plan a semi-experimental has been conducted with pretest-posttest and control group. 40 children of 11 to 13 years old with a diagnosis of comprehensive anxiety disorder, separation anxiety or social anxiety were replaced randomly in two groups

of 20 persons (treatment group and the group of expects) after clinical interview by child and adolescent psychiatrists, evaluating by semi-structured diagnostic Interview by placing at the clinical level based on anxiety scale that is based on the test of list of behavioral problems in children.

Intervention therapy was performed based on Individual cognitive behavioral program for ten sessions to the participants of treatment group.

Under evaluating significant clinically indicated that cognitive-behavioral therapy has been significantly reduced the symptoms of the treatment group anxiety compared with group of expects that has been continued in one and a half months and three months pursuits. Articulating this finding we can say that although this method of treatment emphasizes more on children's anxiety, But techniques that have been taught to children and their parents ,especially in 5-6 and 7 sessions can have a significant effect on reducing negative self-talking and cause increasing confidence and positive self-talking and increasing temper of students. In this orientation sessions of self-talking in anxiety or depressive situations, differentiation were performed between anxiety and harmonious self-talking, problem solving training, helping child to change self-talking and finally, the results indicated that these techniques have been effective. Therefore, addition of parents and teachers training to this context of treatment and signs and symptoms pursuit and abundance of enuresis can be useful in subsequent studies.

## Approbation and thanks

The authors know necessary to their own to thanks all people who have cooperated in this research.

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## EXAMINED THE EFFECTIVENESS OF CBT (COGNITIVE BEHAVIOR THERAPY) ON DEPRESSION AND DEPRESSION IN CHILDREN WITH NOCTURNAL ENURESIS

<sup>a</sup>KOSAR BARDIDEH, <sup>b</sup>FATEMEH BARDIDEH, <sup>c</sup>KEIVAN KAKABARAEI

<sup>a</sup>Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

<sup>b</sup>Department of Plant Breeding, Agriculture Faculty, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

<sup>c</sup>Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Email: <sup>a</sup>kosar.2bardideh@gmail.com,

<sup>b</sup>fatemeh.bardidehfb@gmail.com,

<sup>c</sup>keivankakabaraee.kk@gmail.com

**Abstract:** In this study we assessed the effectiveness of "Cognitive behavioral therapy" on stress and depression in children with nocturia. The cognitive behavioral treatment sessions were designed based on Kendall's method and then was performed on 51 kids in experimental group. Experimental and control groups were assessed using "Penn State worry questionnaire for children", "revised children's depression and depression scale" and "positive and negative affect schedule" on before-after sections. The resulting data were analyzed using descriptive statistics and analysis of covariance. The experiment group showed significant decrease in stress, depression, worry and negative feelings. According to results the cognitive behavioral therapy is effective on stress and depression and it can be used as a harmless treatment in group training on children with nocturia.

**Keywords:** nocturnal enuresis, depression, Kendall cognitive-behavioral

### 1 Introduction

The mental health-related problems in children with enuresis are 2 to 6 times the general population (Parishan et al., 2007). So that depression and depression in children with enuresis are of common psychiatric disorders. Enuresis in elementary school age children is an important and complex problem and is problematic both for parents and child, And, if untreated, cause behavioral problems in children and concerns of parents and even this problem is effective in child's communication in adult age (Sepehmanesh and Marvoogi, 2014). There are various treatment methods for treatment of. Methods that had more effective effects in the treatment of antidepressant are include using tricyclic drugs (desmopressin, conditioning therapy, cognitive therapy or a combination of both. (Yusefi & et al, 2009) Research has indicated that despite the similarity of childhood depression with adults, depression in children includes a variety range of symptoms than in adults depression, in addition to this that depression in children and adolescents has more simultaneity with other mental disorders (Charlson, 2000).

Major depressive disorder is one of the most important cases that is raised about children despite a variety of childhood and adolescent depression and is debilitating like major depressive disorder in adults (Ryan, 2003) So that, the individual operations will be injured in the short term or long term. In fact, major depressive of childhood is a recurrent mood disorder which interferes greatly with normal growth of child and increasingly associates with the risk of suicidal behaviors (Birmaher, et al., 2006). The depression of children is diagnosed when they indicate some evidence of function change according to several two-week periods. Including that depressed child may be irritable or disinterested and does not enjoy of many things or has both of them. In addition, the child should have at least four of the following symptoms nearly every day, and some of his most important functions be disturbed:

- Disorder in sleep (oversleeping or insomnia)
- Slowness or severe psychomotor agitation
- Fatigue or lack of energy

- Feelings of worthlessness or unwarranted and extreme feelings of guilt
- Loss of ability to think, concentrate or make decisions
- Repetitive thoughts about death and suicide (Firoozbakht 2006)

In addition to major depressive disorder, dysthymic disorder also is one of the unipolar and relatively stable mood disorders that appear often in childhood (Park & Goodyer, 2000) Childhood dysthymic has mild depressive symptoms for at least one year in childhood and adolescence that is associated with at least two of the following symptoms:

Poor appetite or overeating, low energy or fatigue, feelings of worthlessness, low concentration or poor decision-making and feelings of hopelessness (Khodayari fard & Abedini)

Psychotherapy and pharmacotherapy have been distinguished useful for children and adolescents with depression disorders. However, evidence indicates that psychotherapy is prior to pharmacotherapy frequently for depressed children (Park & Goodyer, 2000) in cognitive-behavioral therapy; the therapist teaches coping skills to the child and provides situations for him to practice these coping skills. These skills are protective factors in anxious disorders of children (Kenoly and Bernstein 2007.) Cognitive-behavioral therapy has different techniques, but experts using mainly from the following techniques:

- Training to child and parents about depression
- Progressive muscular relaxation exercises
- Deep breathing techniques
- Challenging the thoughts that cause depression (cognitive restructuring)
- Put the child exposed to situations cause depression (real and imagined)

Plans to avoid recurrence (such as amplifiers sessions and cooperation with parents and school) the program of coping cat fighting cat is most usable and best guide of cognitive behavior therapy (kandal, 1990).

In coping cats program children learn that how to modify their primary and secondary evaluation processes that are rooted in incorrect beliefs, In poor evaluation of their abilities and high extent of the threatening situation, By learning several skills of psychological in an atmosphere of therapy, make plans for confrontation, Thinking about available solutions, cognitive reorganizing and avoid hopeful thought and cognitive avoids. And by modifying these self-talking, coordinate their ability with the nature of stressful situations and finally with the confrontation (instead of avoiding) help to strengthen their confidence (Dadsetan & et al, 2010).

Parents learn relaxation techniques and act as therapist (Kenoli & Brinson, 2007). In this way, parents are regularly associated with the therapist. In these meetings parents raise their concerns with the therapist. They can help treatment process by informing the therapist of depression situation of their children at home and the way of their reactions. Since parents have profound feelings toward their children, they may be upset by seeing their Child's grievance, but the best thing that they can do is to help their child to confront with his fear (Dadsetan & et al, 2010). Although few studies have focused on aspects of cognitive therapy and are considered often the methods of pharmacotherapy and behavioral therapy. Therefore, due to the lack of indigenous study in this field and the importance of the outcomes of enuresis, in this study we

will evaluate the effectiveness of cognitive-behavioral therapy on depression and depression of children with enuresis. And we are attempting to answer this question whether cognitive behavioral therapy is effective to reduce depression in children with enuresis or not?

## 2 Methodology

Methodology is quasi-experimental with pre-test and post-test scheme with a control group.

The statistical population of present study includes Children with enuresis referring to outpatient clinics of Urology Specialists in 2015 and the first half of 2016 in Kermanshah city. The total number of participants in this study was 30 children admitted to the pediatric urology specialists in Kermanshah that after randomly selection, 15 individuals were placed in control group and 15 individuals were in intervention group. Sampling for children to targeted participate in the study was based on inclusion criteria. After selecting the case study sample, they randomly were placed into two groups: Control and alternative. In the pilot studies minimum samples of 15 people is appropriate. (Delavare, 2001)

Exclusion criteria including the following cases: lack of chronic diseases, lack of bladder or kidney health problems in children, lack of specific medication, no history of traumatic experiences in the past six months, the primary nocturnal enuresis

## 3 Research Tools

### A: Penn State-form of children Worry Questionnaire (PSWQ-C) (Korpita et al. 1991).

This questionnaire includes 14 items of self-report type.

The questionnaire has used to worry measurement in the children and is useful tool for comprehensive diagnosis and assessment in children between 6 and 18 years old. questionnaire materials is graded from zero to three as a 4-degree scale. The total test score is between zero and 42 and with the higher total score in children is a sign of greater concern. The convergent and diagnostic and reliability validity of questionnaires has been approved in the study of Mofrad, Atef and Bayanzadeh (2000) (Bakhtiari, et al., 2013).

### 3.1 Revised child depression and depression scale (RCADS)

This scale of self-report questionnaire is for children and adolescents from 8 to 18 years old with 47 items and has six scales for measuring separation depression disorder, social phobia, generalized depression disorder, panic disorder, obsession, incontinent and major depression disorder. At this scale the respondent should express that whatever every item is true on him/her due to their usual feelings. In a study on clinical and non-clinical samples good psychometric properties has been reported to this questionnaire. Two specific strong point of this scale are: have several scales is related to the numerous diagnosing depression disorder that can be helpful in determining for treatment, the second that has the short scale for depression to be evaluated the possibility of depression (Chorpita 2011).

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As can be seen in the total average score of depression participants in the control group was equal to (6.28 ± 53.60). This mean and standard deviation in the intervention group was equal to (5.65 ± 58.80). While the mean of the control group has not changed significantly (6.42 ± 54.53) it seems a significant change has

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groups	Mean difference	standard error	Significant	The difference in the confidence level of 92%	
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Control	7.4	1.692	0.000	10.87	-3.928

## 5 Discussion

According to research findings, the hypothesis of research was confirmed that cognitive-behavioral program decreases the rate of depression in children with enuresis that is aligned with the findings of (Pennant & et al, 2015) that indicated the effectiveness of psychotherapy on reducing children and adolescents' depression and depression in a review study. For this purpose, 27 clinical trial studies were selected in which children with depression and depression had been treated. The overall results indicated that cognitive behavior therapy is one of the most effective treatment methods for children. This finding means that people who were in the experimental group have reported significantly fewer depressive symptoms than those in the control groups after the intervention.

In fact, this treatment program has been able to reduce the rate of depression. Wolk & et al (2015) findings that were conducted in a study aimed to evaluate the effectiveness of psychotherapy on depression and depression in children also, indicated that those who had recently thought about suicide have responded to

treatment more than others. These results eventually indicated that depression and depression in children has decreased. In another study that was conducted recently by Pennant & et al (2015) in a review study that evaluates effectiveness of psychotherapy on reducing depression and depression in children and adolescents. 27 clinical trial studies were selected in which children with depression and depression had been treated. The overall results indicated that cognitive behavior therapy is one of the most effective treatment methods for children. This finding is aligned with results obtained in this research.

Articulating this finding, we can say that although this method of treatment emphasizes more on children's anxieties but the techniques taught to the children and their parents especially in 5-6 and 7 sessions can have a significant effect on reducing negative self-talking and cause increasing confidence and positive self-talking and increasing the mood of students. In this orientation sessions of self-talking in situations of depression or depressive, differentiation were performed between depression and harmonious self-talking, problem solving training, helping child to change self-talking and the results indicated these techniques had

been effective. Results of previous researches confirm that the behavioral disorders and psychological problems have more prevalence among children with enuresis. So that Yusefi & et al., (2012) found that children with enuresis were significantly more behind in terms of evolutionary and growth than normal children in five axis of Personal social, problem solving skills, rough movements, subtle movements and communication of children with primary nocturnal enuresis. The results of Salehi & et al., 2012 study from the internalizing problems, externalizing, depression- depression, retirement-depression and emotional - behavior, there was a significant difference between the two groups of children with and without primary nocturnal enuresis.

Sepehrmanesh, 2014 reports prevalence rate of depression disorders in children with enuresis 39 percent that is significant figure. So, the necessity to attention to disorders associated with enuresis can be helpful in reducing the problems associated with this problem. Since many people linked the depression, depression and even the quality of mother's life and children with enuresis with enuresis, so, reducing on the symptoms of depression and depression can have a positive effect on children's confidence, reduce their behavioral problems. The results of this study indicate that using standard cognitive-behavioral therapy has been effective in children with enuresis and has been able to significantly reduce the rate of depression and depression. So adding parents and teachers training to this context of treatment and prevention of signs and symptoms and the prevalence of enuresis can be useful in future studies.

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## THE RELATIONSHIP BETWEEN EXECUTIVE FUNCTIONS AND ACHIEVEMENT GOALS WITH ACADEMIC SELF-EFFICACY IN STUDENTS

<sup>a</sup>FARANGIS AKBARI, <sup>b</sup>MOJGAN SEPAH MANSOUR

<sup>a</sup>MA in Educational Psychology, Islamic Azad University, Central Tehran Branch

<sup>b</sup>Assistant Professor, Department of Psychology, Islamic Azad University, Central Tehran Branch

Email: <sup>a</sup>faarangiz.akbari23@gmail.com,  
<sup>b</sup>drsepahmansour@yahoo.com

**Abstract.** The purpose of this research was to specify the relationship between executive functions and achievement goals and academic self-efficacy in students. The sample studied in the research consisted of 147 female studying in high schools in Tehran using the random method. For data analysis, Pearson's correlation method and simultaneous multiple regression method were used in SPSS statistic software along with methods of descriptive statistics. The results of the research demonstrated that the number of stages component is positively correlated with academic self-efficacy, and the preservative error and specific error are negatively and significantly correlated with it. Furthermore, the regression analysis results demonstrated that the number of stages ( $\beta=0.385$ ) and the mastery style of achievement goals ( $\beta=0.371$ ) positively predict academic self-efficacy.

**Keywords:** academic self-efficacy, achievement goals, executive functions

### 1 Introduction

One of the variables effective on academic achievement is self-efficacy beliefs. Research results demonstrate that there is a significant positive relationship between self-efficacy beliefs and academic achievement, and students with high self-efficacy have had high scores in tasks and tests concerning writing (Sommerfield and Watson, 2000); actually, academic self-efficacy beliefs denotes students' perception and belief of their ability to comprehend and learn, solve school problems, and obtain academic success, which affects many aspects of life, such as goal selection, decision making, amount of effort, perseverance and persistence level, and confrontation of challenging issues (Bandura, 2006). Altunsoy and colleagues (2010) regard academic self-efficacy as a concept related to self-efficacy concerning the student's belief about the ability to achieve a specific task level.

An important variable that may be related to academic self-efficacy realized in academic achievement is executive functions; executive functions is a collection of interrelated control processes involved in selection, initiation, implementation, and supervision of the cognitive function as well as aspects of the sensory and motor function (Roth, 2005). Abilities examined as executive functions in most research include inhibition, planning, sustained attention, working memory, and abstract thinking (Wolf, 2004). Executive functions include a wide range of cognitive processes, such as reasoning, problem solving, planning, organization, active memory, discipline, sustained attention capability, confrontation with interference, utilization of feedbacks, multitasking, and behavioral abilities (Loftiz, 2014).

Barkly (2001) used the behavioral-neurological model to explain executive functions, and regarded inhibited response as a necessary condition for the effective role of self-regulation in social life and academic performance complexities based on the same model. Barkly holds that executive functions and behavioral inhibition make self-regulation possible, and enable the individual to control his behavior and predict and manage events. He also holds that behavioral inhibition causes the response to an event to be presented with delay and provide the conditions for application of other executive functions (Barkly, 2006).

Another important variable that may be related to academic self-efficacy is achievement goals; achievement goal theory is a framework for perception of motivation for achievement, motivation in academic and mastery fields in particular. The

theory, presented by Dweck (1986) and Nicholls and colleagues (1984) has been suggested in resources concerning motivation for achievement as a justifier of people's behavior, cognition, and emotions in environments related to education and mastery (Elliot and colleagues, 1999), which has mainly appeared for specific explanation of behavior. Therefore, they are the most practical target theories for perception and improvement of learning and teaching (Pitirinch and colleagues, 2003).

It is goal orientations, goals, and meanings that the individual takes into account for his achievement behavior (Rayan and Pitirinch, 1997). In separation of achievement goals, researchers first used to focus only on the two mastery and functional orientations (Dweck, 2000), but more recent evidences and theories suggest three goal orientations (Midgley and colleagues, 1998) or even four: mastery-function, mastery-avoidance, function-approach, and function-avoidance (Elliot, Fonseca, and Moller, 2006). People with mastery orientation try to obtain mastery over tasks, overcoming challenges or increasing competency levels, and people with functional orientation try to obtain good grades or satisfying others (the teacher, parents, or others) (Pitirinch, 1999). The approach or avoidance feature of orientations also concerns the individual's willingness to get away from or close to tasks to achieve goals. Therefore, achievement goals can be considered as a cognitive-social mental framework, guiding the individual in interpreting conditions, processing information, facing tasks, and confronting challenges (Kaplan and Flum, 2010). Achievement goal theory explains the approaches students have in different achievement conditions, and assumes that goals specify and guide the direction of students' behavior, cognition, and motivation, so that they get involved in academic tasks (Ames, 1992; Lee and colleagues, 2010).

Several studies have demonstrated that functional-normative goals have a stronger relationship than mastery goals with academic self-efficacy (Hulleman and colleagues, 2010). These findings as well as the advantages of functional goals in making some students interested have made some theoreticians develop a multi-goal approach that emphasizes the positive consequences of both approaches. However, there are still criticisms focused on the validity of the advantages of normative goals, particularly in regard to the relationship between normative goals and academic achievement (Senko, Hulleman, and Harackiewicz, 2011).

The findings of Calero and colleagues' (2007) study, conducted for comparison between gifted and ordinary children's characteristics, demonstrated that gifted children obtained higher scores than ordinary groups not only at intellectual level but also in the values of self-regulation and self-motivation (achievement goals has been identified as a basic motivation component in academic achievement).

Dixon, Cross, and Adams (2001) regard characteristics such as creativity, flexibility, intrinsic motivation, and self-regulation as some specific psychological aspects of people with high academic self-efficacy. Chang (1989) found that gifted students enjoy learning a subject more than ordinary students. Based on Dweck (1986, 1990), the achievement goals of children who hold that intelligence is a fixed characteristic are mostly functional, whereas the achievement goals of children who hold that intelligence is a flexible characteristic are of the mastery (learning) type. The result of her research demonstrated that task selection and process follow-up are done based on abilities in children with functional goal orientation, whereas task selection and process follow-up are focused on achievement and mastery based on efforts in children with mastery (learning) goal orientation. Schommer and Dunnell (1997) state that students with little effort hold that ability is a fixed characteristic, whereas superior students more likely hold that the learning ability can be improved. Furthermore, Dweck and Leggett

(1988) hold that students with mastery goal orientation enjoy higher feeling of competency, and do their tasks successfully. On the other hand, a number of studies have clearly demonstrated that students with mastery goal orientation demonstrate high levels of learning self-regulation skills (Schunk, 1994).

In light of what was mentioned above, this research was seeking to answer the question of whether executive functions and achievement goals are related to academic self-efficacy in students and whether executive functions and achievement goals are able to predict students' academic self-efficacy.

## 2 Method

This study was of the correlation research type. The population of the present research included all female students in the second grade of high school in the field of natural science in ordinary (state) schools in Tehran studying in the 2015-2016 academic year. Cochran's formula was used for specification of the sample size; based on the results obtained from the formula, 150 people was determined for the research. Cluster sampling method was used for sample selection. Wisconsin Card Sorting Test, Midgley and colleagues' (1998) goal orientation questionnaire, and Patrick and colleagues' (1997) academic self-efficacy scale were used for data collection.

### 1. Wisconsin Card Sorting Test<sup>1</sup>

The Wisconsin Card Sorting Test (WCST) is a neuropsychological test of "set-shifting", i.e. the ability to display flexibility in the face of changing schedules of reinforcement (Monchi, et al., 2001). The Professional Manual for the WCST was written by Robert K. Heaton, Gordon J. Chelune, Jack L. Talley, Gary G. Kay, and Glenn Curtiss. The WCST test may be used to help measure an individual's competence in abstract reasoning, and the ability to change problem-solving strategies when needed (Biederam J, et al., 2000). In this test, a number of cards are presented to the participants. The WCST consists of 4 cards with different forms (crosses, circles, triangles or stars), of various colors (red, blue, yellow or green) and numbers of objects (1, 2, 3 or 4) on them. As the task is usually administered, the 4 stimulus cards with the following characteristics are placed before the subject from left to right: 1 red triangle, 2 green stars, 3 yellow crosses and 4 blue circles. The subject is instructed to sort each response card under one of the stimulus cards, whichever she or he thinks is correct. After each sort, the subject is told whether the sort was right or wrong. No other instructions are given throughout the test. The instructor begins by responding "right" each time the subject matches for color. This continues until 10 consecutive cards have been sorted by color. The examiner then, without forewarning or comment, changes to "form" as the correct response. After 10 consecutive forms responses, the principle changes to "number" and so on. The test continues until the subject has either completed 6 categories or all 128 cards have been used.

In their research, Shahgholian, Azad Fallah, Fathi Ashtiyani, and Khodadadi (2011) designed the computerized version of Wisconsin Card Sorting, and examined its psychometric characteristics, and demonstrated that the reliability of the test using Cronbach's alpha coefficient is 0.73 for the number of stages and 0.74 for the preservative errors.

### 2. Midgley and Colleagues' (1998) Goal Orientation Questionnaire

This questionnaire was provided by Midgley and colleagues (1998). The test contains 18 questions, to be answered based on the 7-point Likert Scale. It includes three subscales: 1- goal-mastery (questions 1 to 6 of the questionnaire), 2- functional-approach (questions 7 to 12 of the questionnaire), and 3-

functional-avoidance (questions 13 to 18 of the questionnaire). In each subscale, the scores of the 6 questions are added, and constitute the individual's score in the subscale.

The reliability of the subtests of the questionnaire have been reported as 0.70 to 0.80. In their research, Kareshki, (2008) reported the reliability of the subtests as 0.87, 0.84, and 0.76, respectively; furthermore, the overall reliability of the questionnaire was reported as 0.087. The validity of the questionnaire has also been verified in Kareshki and colleagues' research using confirmatory and exploratory factor analysis. Furthermore, in Kareshki (2012), Cronbach's alpha coefficient for mastery, functional-approach, and functional-avoidance goals were obtained as 0.92, 0.87, and 0.92, respectively, and the overall reliability of the questionnaire as 0.91.

### 3. Patrick and Colleagues' (1997) Academic Self-efficacy Scale

The scale, made by Patrick, Hicks, and Ryan (1997), contains 7 items, reflecting students' perception of their competency in doing class tasks. The questions are scored between 1 and 5 from *totally agree* to *totally disagree*. Hashemi (2001) has reported the reliability of the scale with the two methods Cronbach's alpha and Spearman-Brown split-half as 0.65 and 0.59, respectively. The construct validity of the scale has been proven in many studies. Middleton and Migley (1997) reported a correlation coefficient of  $R=0.43$  between academic efficacy and mastery goal orientation. In Haji Yakhchali, (2014), Cronbach's alpha coefficient for the academic self-efficacy scale has been obtained as 0.82.

For data analysis, Pearson's correlation coefficient and simultaneous multiple regression method were used in the 21 version of SPSS statistic software.

<sup>1</sup> WCST

### 3 Results

Table 1: Correlation coefficients between executive function components and academic self-efficacy

Variable number in columns	1. Academic self-efficacy	2. Number of stages	3. Preservative error	4. Specific error
1.	1	0.504**	-0.228**	-0.184*
2.		1	-0.430**	-0.431**
3.			1	0.381**
4.				1

\*\* The correlation is significant at 0.01 level. \* The correlation is significant at 0.05 level.

The Table 1 data demonstrate that in the Wisconsin Test results, the number of stages component ( $\text{sig} \leq 0.01$ ;  $R=0.504$ ) is positively and significantly correlated with academic self-

efficacy, but preservative error ( $\text{sig} \leq 0.05$ ;  $R=-0.228$ ) and specific error ( $\text{sig} \leq 0.05$ ;  $R=-0.184$ ) are negatively and significantly correlated with academic self-efficacy.

Table 2: Correlation coefficients between goal achievement components and academic self-efficacy

Variable number in columns	1. Academic self-efficacy	2. Mastery style	3. Approach-function style	4. Approach-avoidance style
1.	1	0.482**	0.152	-0.354**
2.		1	0.484**	-0.184*
3.			1	0.148
4.				1

\*\* The correlation is significant at 0.01 level. \* The correlation is significant at 0.05 level.

The Table 2 data demonstrate that the mastery style ( $\text{sig} \leq 0.01$ ;  $R=0.482$ ) is positively and significantly correlated with academic self-efficacy, but the approach-avoidance style ( $\text{sig} \leq 0.01$ ;  $R=-0.354$ ) is negatively and significantly correlated

with academic self-efficacy. However, the approach-function style ( $\text{sig} \leq 0.066$ ;  $R=0.152$ ) is not significantly correlated with academic self-efficacy.

Table 3: Summary of regression model, variance analysis, and statistical specifications of academic self-efficacy resulting from executive functions and achievement goals

Variable	Model	SS	df	MS	F	P	R	R <sup>2</sup>
Executive functions and achievement goals	Regression	934.775	6	155.796	17.167	0.001	0.651	0.424
	Residual	1270.545	140	9.075				
	Total	2205.320	146					

Based on the data presented in the table, the correlation coefficients between the studied variables ( $R$  equal to 0.651 and  $R^2$  equal to 0.424) have been obtained. In other words, 42.4 percent of the academic self-efficacy variance can be explained in terms of achievement goals and executive functions. In this

model, ANOVA test confirms the efficiency of the utilized model in predicting the dependent variable based on the values  $F=17.167$  and  $\text{sig}=0.001$ , and it can be said that there is significant relationship between the predicting variables inputted into the model and academic self-efficacy.

Table 4: Academic self-efficacy regression based on achievement goal styles and executive function components

Model	(Unstandardized Coefficients)	standard coefficients	T	sig
	B	beta		
(Constant)	620.22	-	393.8	001.0
number of categories	155.1	385.0	869.4	001.0
Preservative error	039.0	036.0	487.0	627.0
Other errors (specific error)	012.0	015.0	203.0	839.0
Mastery goal style	180.0	371.0	617.4	001.0
Approach-function goal style	-030.0	-045.0	-588.0	557.0
Approach-avoidance goal style	-108.0	-196.0	-743.2	007.0

In Table 4, the values of change in the criterion variable (academic self-efficacy) for each unit of change in the predictor variable have been presented based on the values of  $\beta$  (standard regression coefficients); according to the values of  $t$  and its significance levels, it can be concluded that the number of stages in Wisconsin Test and mastery goal style positively predict academic self-efficacy. Based on the standard regression coefficients, it can be stated that the number of stages ( $\beta=0.385$ ) and mastery goal style ( $\beta=0.371$ ) have significant shares of academic self-efficacy prediction.

Furthermore, the approach-avoidance goal style negatively predicts academic self-efficacy. It can be stated based on standard regression coefficients that the approach-avoidance goal style ( $\beta=-0.196$ ) has a significant share of academic self-efficacy prediction.

### 4 Discussion

Based on the findings obtained from this research in female high school students, the number of stages component is positively and significantly correlated with academic self-efficacy. The preservative error and specific error are negatively and significantly correlated with academic self-efficacy; if we regard academic performance as the output of academic self-efficacy, the findings of this research are in accordance with results of research that has investigated and confirmed the relationship between executive functions and academic performance; for instance, Barkly (2001) used the behavioral-neurological model to explain executive functions, and regarded *inhibited response* as a necessary condition for the effective role of self-regulation in social life and academic performance complexities based on the same model. Barkly holds that executive functions and

behavioral inhibition make self-regulation possible, and enable the individual to control his behavior and predict and manage events. He also holds that behavioral inhibition causes the response to an event to be presented with delay and provide the conditions for application of other executive functions (Barkly, 2006).

Furthermore, the findings of the research are in accordance with the results of Wilson and colleagues (2001) due to focus on the relationship between executive functions and academic performance (as the output of academic self-efficacy); they have specified that the decision making-planning function plays a very important role in academic performance, scheduling competency, relative motor strength, and voluntary movements.

In regard to the relationship between achievement goals and academic self-efficacy, the findings obtained from this research demonstrated that the mastery style of achievement goals is positively and significantly correlated with academic self-efficacy, but the approach-avoidance style is negatively and significantly related to academic self-efficacy; if we regard academic achievement as one of the positive outputs of academic self-efficacy, the findings of the research on the relationship between the mastery style of achievement goals and academic self-efficacy are in accordance with the results of Keys and colleagues (2011). They demonstrated in their research that while all the three goal orientation methods were correlated with academic achievement, it was only mastery orientation that predicted students' academic achievement in mathematics in a stable manner. Furthermore, the findings of the research are in accordance with the results of Lee and colleagues (2010) due to focus on the relationship between intrinsic motivation (which is one of the characteristics of people with high self-efficacy) and the mastery style of achievement goals; using structural equation modeling, Lee and colleagues demonstrated that future goals with intrinsic motivation (job, social, and family orientations) have a stronger relationship with the approach-mastery orientation than with the approach-functional one, whereas future goals with extrinsic motivation (fame and wealth orientations) have a stronger relationship with the approach-functional orientation than with the approach-mastery one. Researchers suggest that teachers should encourage students to match goal orientation to intrinsic motivation and future goals to increase students' academic motivation.

Furthermore, the results of this research are in accordance with Rastegar and colleagues' (2009) findings due to focus on the relationship between intelligence beliefs and academic achievement (self-efficacy) in light of the mediating role of achievement goals. They demonstrated that the relationship between intelligence beliefs and academic achievement is affected by achievement goals and academic engagement aspects: *inherent intelligence belief* indirectly and negatively affects academic achievement through approach-function goals, avoidance-function goals, cognitive strategies, and task value, and *incremental intelligence belief* (the role of self-efficacy) indirectly and positively affects academic achievement through *mastery goals*, effort, metacognitive strategies, and task value.

Furthermore, the findings of this research are in accordance with the results of Davari, (2012); they investigated in their research the relationship between academic self-efficacy and achievement goals, and demonstrated that academic self-efficacy was positively related to approach-mastery goals, and had a significant share in predicting it, and was negatively related to avoidance-functional goals, and had a significant share in predicting this aspect of achievement goals.

In regard to the predictor role of executive functions and achievement goals in predicting academic self-efficacy, the findings obtained from this research demonstrated that executive functions (number of stages) ( $\beta=0.385$ ) and the mastery style of achievement goals ( $\beta=0.371$ ) positively predict academic self-efficacy. On the other hand, the approach-avoidance style of achievement goals ( $\beta=-0.196$ ) negatively predicts academic self-efficacy.

As mentioned above on the relationship between executive functions and academic self-efficacy, based on Barkly's (2001, 2006) theory, executive function components, such as inhibited response, play a

very significant role in self-regulation in the complexities of social life and academic performance, which is in accordance with the findings obtained from this research concerning the prediction of academic self-efficacy based on executive functions; Barkly holds that behavioral inhibition delays the response to an event, which provides the conditions for application of other executive functions (Barkly, 2006). Along the same lines, the results of this research are in accordance with those of Wilson and colleagues (2001); they specified that the decision making-planning function (executive function component) plays a very important role in academic performance, scheduling competency, relative motor strength, and voluntary movements (academic self-efficacy components).

The findings obtained from this research can also be explained in terms of the results of Malekpur (2013). They argued in their research that teaching executive functions (response inhibition) reduces attention deficit and improves academic performance, which is in line with the results of this research due to focus on the relationship between executive functions and academic self-efficacy.

Furthermore, in regard to explanation of the significant share the mastery style of achievement goals has in predicting academic self-efficacy, the findings of this research are in accordance with the results of Keys et al., (2011); they demonstrated in their research that mastery orientation predicts students' academic achievement in mathematics (academic self-efficacy) in a stable manner. Furthermore, the findings of the research are in accordance with the results of Lee and colleagues (2010) due to focus on the relationship between intrinsic motivation (which is one of the characteristics of people with high self-efficacy) and the mastery style of achievement goals; using structural equation modeling, Lee and colleagues demonstrated that future goals with intrinsic motivation (job, social, and family orientations) have a stronger relationship with the approach-mastery orientation than with the approach-functional one, whereas future goals with extrinsic motivation (fame and wealth orientations) have a stronger relationship with the approach-functional orientation than with the approach-mastery one. Researchers suggest that teachers should encourage students to match goal orientation to intrinsic motivation and future goals to increase students' academic motivation. Along the same lines, the findings obtained from this research are in accordance with Rastegar and colleagues' (2009) due to focus on the relationship between intelligence beliefs and academic achievement (self-efficacy) in light of the mediating role of achievement goals. Researchers hold that the relationship between intelligence beliefs and academic achievement is affected by achievement goals: *inherent intelligence belief* indirectly and negatively affects academic achievement through approach-function goals, avoidance-function goals, cognitive strategies, and task value, and *incremental intelligence belief* (the role of self-efficacy) indirectly and positively affects academic achievement through *mastery goals*, effort, metacognitive strategies, and task value.

Furthermore, the findings of this research are in accordance with the results of Davari, (2012). They demonstrated in their research that academic self-efficacy is positively related to approach-mastery goals, and has a significant share in predicting it; furthermore, the results of Lavasani and Ezhei demonstrated that academic self-efficacy was negatively related to avoidance-functional goals, and played a significant role in predicting this aspect of achievement goals, with which the results obtained from this research are in accordance. Doubtlessly, these findings will have important implicit consequences in regard to planning for improvement of academic self-efficacy as an important factor in enhancement of the academic achievement of the next generation of the country.

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## IDENTIFYING POTENTIALS AND DEFICITS OF THE WORN OUT TEXTURES TO SUSTAINABLE URBAN DEVELOPMENT (CASE STUDY: THE WORN OUT TEXTURES OF AMOL)

<sup>a</sup>ROGHAYEH FATHI, <sup>b</sup>SIROOS SHAFAGHI, <sup>c</sup>HASSAN BEIK MOHAMMADI

<sup>a</sup>PhD Student in Geography and Urban Planning, Shakhspajoo Research Center, Isfahan University

<sup>b</sup>Professor of Shakhspajoo Research Center, Isfahan University

<sup>c</sup>Associate Professor of Shakhspajoo Research Center, Isfahan University

Email: <sup>a</sup>rogheyfathi.12@gmail.com,

<sup>b</sup>amoozesh@bshakhspajouh.ac.ir,

<sup>c</sup>hssn.beik.mohmdi@gmail.com

**Abstract.** This research aims to identify potentials and deficiencies of the worn out textures of Amol. It seeks to increase movement and improve the current situation by developing this area, which it leads to progress in the surroundings. So, identifying the weaknesses, strengths and potentials of the worn out textures as well as providing constructive strategies for organizing the neighborhoods not reduce inefficiency and inability of the textures, but can lead to city integration in terms of access to facilities and organizing urban sustainable development with proper supervision of executive agencies and educating culture for public participation. The results of expert and public questionnaires were used in SWOT technique and provided results based on public participation, housing and economic, environmental, and social factors.

**Keywords:** the worn out texture, stability, organizing, quality of life, SWOT

### 1. Introduction

Rehabilitation, modernization and revitalization of old urban textures are the major challenges facing urban management in developing countries, including our country (Parviz Varjavand, Internet website). The damaged urban areas are known by three features: microlithic, access problems and instability (Ghalibaf, 2007: 3). Like other old cities of the country, Amol in Mazandaran province, has a deteriorated core. According to the latest population and housing census in 2011 (Statistical Yearbook of Mazandaran, 2011), its population is 222,066. With 67831 households and household dimension of 3.3, Amol has located in Mazandaran Plain, in both sides of Haraz River with attitude of 76 m, in distance of 70 km from west of Sari, the province capital, 18 km south of the Caspian Sea, 6 km north of the Alborz Mountain range and 180 km northeast of Tehran. According to the obtained graph from Amol Bureau of meteorology –which it is a synoptic station- it can be found that on 2011, average temperature and annual atmospheric raining were 13.3 °C and 635 mm in Amol respectively; while its average relative humidity is 80%. The worn out textures have 300 years old in Amol that have been completely surrounded by the conducted renovations on the first and second Pahlavi era (Consulting Engineers of Research and Development, 2006). With an area of approximately 404 hectares, population of 20073 people, 5282 households and household size of 8.3 (Statistical Yearbook of Mazandaran, 2011), the textures locate in geometric center of the city, like other historical arteries in spatial viewpoint. They are surrounded by contemporary sectors of urban textures and main urban arteries (17 Shahrivar and Enqelab Streets in south, Taleb Amoli St. in west, Shahid Beheshti St. in east and the worn out texture area of Amol in north). It has 14 neighborhoods with the whole area of 404 hectares. A large part of buildings in the 14 districts of Amol worn out texture have no enough strength and stability, due to many reasons including age, using non-durable materials and lack of considering proper methods of construction. Totally, in terms of microlithic and impermeable items, indices of worn out textures can be identified in parameters such as lack of emergency relief network in some areas, lack of fitting width of passages, public spaces and recreational deficiency, low economic level of many families, lack of regulatory and participatory units, the ruined houses and mismatch in visual appearance. As a result, by considering the mentioned issues,

this range has been located in the burnout cycle and decay. Therefore, by considering the above-mentioned factors and central situation of the structure in the city that can have a huge impact on development or lack of development of the city, we looked to identify the potential and deficiencies of the worn out texture and provide new strategies for sustainable urban development.

### 2. Research Theoretical Foundations

Semi or completely derelict buildings, poor housing and declining socio-economic qualities can be mentioned as effects of urban worn out textures, which the processes wear out cities internally. However, following changes in lifestyle and current settlements, especially in the wake of changing needs to various services and needs resulting from changes over time, living in such urban textures will be forced with the processes, due to comply with new conditions. In general, the worn out urban textures can be defined as follows: “the worn out urban texture refers to urban legal limits that have low place, economic and environmental value due to their physical exhaustion. Several factors involve in their occurrence and formation such as physical, performance, environmental, socio-economic and cultural factors. The destructive impact of each factor will reduce quality and quantity of environmental values in areas of city. Renovation efforts will be stopped in such regions, due to decline habitual-performance values. As a result, there are increased the desire to no change and wear out and inefficiency state is predominate (Matoof & Khodai, 2008). According to the approved regulations by Supreme Council of Civilization and Architecture, indices of diagnosing the worn out textures include: 1) instability that shows lack of suitable structural system and instability of buildings; 2) impenetrability that represents lack of proper access and less passages with sufficient width to move the mounted motion (more than 6 m); 3) microlithic that indicates density of textures and multiplicity of small parts (land separation plaques); 4) urban blocks are bases to identify the worn out textures; in other words, any urban block that 50% of its parts are covered by these criteria are considered as the worn out textures; 5) unstable block is a block that at least 50% of its buildings are unstable, due to lack of suitable structural system and non-compliance with technical standards; 6) impermeable block is a block that at least 50% of its passage is less than 6 m. In addition to resolve their problems that is considered as a necessary matter, we can take steps by identifying potentials and shortcomings of the worn out textures and provide new strategies for sustainable urban development. It should also be noted that the word of “development” in sustainable urban development means a process that happens stability during it, but stability in “urban sustainability” is a collection of situations that lasts over time (Laghai & Mohammadzadeh, 1999). The final goal is that we can achieve urban sustainability, in addition to participate public, private and government sectors as well as municipalities that play a special role to in this process.

### 3. Methodology

This research is applicable-developmental objectively; while it is a combination of descriptive, documentary and solidarity methods in terms of method and nature. In this study, we will answer two questions, by attitude of changing land use and renovating the worn out textures tissues: 1) What are the main problems to settle the worn out textures in Amol, in order to achieve sustainable development? 2) What are suitable solutions to achieve optimal sustainable urban development in the worn out textures of Amol? The research objectives are the ultimate purposes of the researcher in the research process that can be divided into primary and secondary objectives in line with the research importance. In the present research, we consider the

following goals: the research main objective is to provide strategies for organizing the worn out textures in neighborhoods of Amol, in order to achieve sustainable urban development. Recognizing exhaustion aspects of the worn out textures in Amol, identifying factors contributing to burnout in the textures, providing solutions for sustainable urban development and emphasizing on public participation can be considered as the research secondary objectives. The research hypotheses are as follows: 1) lack of appropriate access in this texture is related with problems the worn out textures in Amol; 2) organizing the worn out textures in Amol by emphasizing on public participation is very effective. Library methods were used to

collect data. In the first steps of collecting data on library methods included using books, journals, the printed articles in field of the research, the related theses in universities and scientific centers and scientific resources in the Internet. Tables, maps and designs were used to assess and analyze the research results. Due to use the expert and public questionnaires, its population is divided into two categories: 1) heads of households in the area (n= 5282, according to equation 1); the related experts inn Renovation and Development Organization and Cultural Heritage Administration (n= 30).

$$\frac{\text{Total population in the worn outtextures on 2011}}{\text{Family dimension}} = \frac{20073}{3.8} = 5282 \text{ (number of families in texture)} \quad (1)$$

For heads of households, n= 304 in the obtained sample rate through the Cochran Formula (Eq. 2).

$$n = \frac{z^2 pq}{d^2} \quad 304 = \frac{1.96^2(0.7)(0.3)}{(0.005)^2} \quad (2)$$

$$1 + \frac{l}{N} \left( \frac{z^2 pq}{d^2} - 1 \right) \quad 1 + \frac{1}{5282} \left( \frac{1.96^2(0.7)(0.3)}{(0.005)^2} - 1 \right)$$

#### 4. The Studied Area

Like other old cities of the country, Amol in Mazandaran province, has a deteriorated core. According to the latest population and housing census in 2011 (Statistical Yearbook of Mazandaran, 2011), its population is 222,066. With 67831 households and household dimension of 3.3, Amol has located in Mazandaran Plain, in both sides of Haraz River with attitude of 76 m, in distance of 70 km from west of Sari, the province capital, 18 km south of the Caspian Sea, 6 km north of the Alborz Mountain range and 180 km northeast of Tehran. The worn out textures have 300 years old in Amol that have been completely surrounded by the conducted renovations on the first and second Pahlavi era (Consulting Engineers of Research and Development, 2006). With an area of approximately 404 hectares, population of 20073 people, 5282 households and household size of 8.3 (Statistical Yearbook of Mazandaran, 2011), the textures locate in geometric center of the city, like other historical arteries in spatial viewpoint. Space of housing units is as open system that is influenced by climatic and cultural characteristics of the city's position. The houses' roofs are sloped and clay and windows and doors are wooden. In terms of building, almost half of residential area is less than 200 square meters and in terms of number of floors, 1 and 2 storey buildings constitute the highest percentage. The types of used materials include the brick and wooden supporting walls and age of most of buildings is between 30 to 45 years old. In terms of communication networks, its streets and passages are three meters wide (Takht-e-Poolad Consulting Engineers, 2010; the researcher field surveys). Some effects of worn out in old urban areas can be the exhaustion in physical, social, economic and environmental aspects of the regions, which all of them have joined hands that most of the buildings are being demolished and

they are unsecured and uninhabitable, in terms of residential viewpoint. They have a complex and tangled network of narrow alleyways, traffic problems, exhaustion and failure in installations and urban facilities. Over the years, they have not lost their indigenous population, but they have become a location for living low-income immigrants, non-native residents and rural migrants and even foreign nationals such as Afghans, who were looking for the cheapest urban areas for resident (Soltanzadeh, 2009: 3).

#### 5. Results

After distributing questionnaires, the results of expert and public questionnaires were used in SWOT technique and there was formed a SWOT matrix. The purpose of SWOT matrix and determining aggressive, competitive, conservative and defensive strategies are stated as the following:

1. How we can utilize maximum opportunities from strengths?
2. How we can eliminate or reduce effects of threats using the strengths?
3. How we can change weaknesses into strengths or reduce severity of the weaknesses using opportunities?
4. How we can reduce or remove effects of threats by reducing the weaknesses?

In fact, we can take steps to improve conditions of the worn out textures and sustainable urban development by identifying potentials and deficiencies of the worn out textures and providing strategies. There were presented results of SWOT analysis based on popular participation, housing and economic, environmental, social and physical factors (table 1).

Table 1. ST, SO, WO and WT strategies for neighborhoods of the worn out textures in Amol

SO strategy	SO <sub>1</sub> : using natural potentials of neighborhood to design and create public and cultural spaces
	SO <sub>2</sub> : holding social meetings to attract eager people to participation
	SO <sub>3</sub> : attracting private capital, due to high percentage of private property
	SO <sub>4</sub> : improving business environment by focusing on the region economic activities
	SO <sub>5</sub> : promoting and strengthening the sense of belonging to a place among residents by creating symbols and ... in different parts of neighborhoods, especially at its center
	SO <sub>6</sub> : optimal using neighborhood mosque as a cultural and information institution as well as social interactions
	SO <sub>7</sub> : full implementation of urban regulations for optimal intervention in the worn out texture and maximize proper using monuments to keep neighborhood originality
ST strategy	ST <sub>1</sub> : allocating spaces for parking by considering the land suitable price
	ST <sub>2</sub> : job creation by emphasizing economic activities in neighborhood to reduce inactive population

	ST <sub>3</sub> : recruiting eager people in renovation to improve performance of improvement councils	
	ST <sub>4</sub> : using moorlands to create green space, proper perspective and cultural and recreational spaces	
	ST <sub>5</sub> : improving communication network and narrow passages and geometric development of the texture for better access to the main street	
	ST <sub>6</sub> : considering long living history of people to conduct actions for renovating the texture	
	ST <sub>7</sub> : considering private property to restore old buildings	
	ST <sub>8</sub> : considering long-term and low interest loans for low-income residents	
	ST <sub>9</sub> : establishing the affiliated improvement and modernization branches on neighborhood centers	
	ST <sub>10</sub> : approving a comprehensive law on discount operating and engineering costs in the field of worn out texture	
	WO strategy	WO <sub>1</sub> : aligning constructions with climate and historical texture of the neighborhood
		WO <sub>2</sub> : suitable space distribution with local uses and services
WO <sub>3</sub> : determining fines and regulations to obligate owners of the abandoned and inefficient spaces for renovation		
WO <sub>4</sub> : determining appropriate conditions and facilities for allocation to owners of lands to the required uses		
WO <sub>5</sub> : attracting private capitals to create tourism spaces and job creation		
WO <sub>6</sub> : providing favorable conditions to reduce social harms by participation of the residents		
WT strategy	WT <sub>1</sub> : preventing distribution of drugs in neighborhood and reducing its social damages	
	WT <sub>2</sub> : changing and improving sport, health and cultural usage per capita	
	WT <sub>3</sub> : developing incentive programs to attract private investors in renovation and improvement affairs	
	WT <sub>4</sub> : rehabilitating the ruined and barren spaces and convert them to appropriate land uses and public open spaces to right attract people	
	WT <sub>5</sub> : using indigenous forces to participate in renovation and modernization	
	WT <sub>6</sub> : establishing supportive funds to bring order to financial situation of residents to renovate their residences and avoid more worn out	
	WT <sub>7</sub> : improving neighborhood structure according to modern applications and required for residents	
	WT <sub>8</sub> : upgrading and widening passages network to increase public safety	
	WT <sub>9</sub> : more stringent implementation of environmental laws to improve public health situation of neighborhoods	

After recognizing all weaknesses, strengths, opportunities and threats, there were prioritized internal and external factors in the

textures, which they are summarized in Table 2 for various neighborhoods.

Table 2. Summing up the results of internal and external evaluation of performance in the neighborhoods of the worn out textures in Amol

Feature	With fundamental strengths	With fundamental weakness	With fundamental opportunity	With fundamental threat
Neighborhood				
Aspehkala		*		*
Sabzeh Meidan	*			*
Ski Mahaleh		*		*
Gorji Mahaleh		*		*
Kardgar Mahaleh	*		*	
Gol Bagh Mahaleh	*		*	
Mashai Mahaleh	*		*	
Shahandasht Mahaleh	*		*	
Niaki Mahaleh	*			*
Ghadi Mahaleh		*	*	
Paein Bazar	*		*	
Kasha Mahaleh		*		*
Chaksar Mahaleh		*	*	
Old town		*		*

**6. Conclusion**

According the output of the expert questionnaires and Table of summing up results of internal and external assessment performance on the worn out textures in Amol as well as results of public questionnaire, there were proposed strategies for organizing the worn out neighborhoods in Amol. The suggestions were proposed to organize the textures for maintaining their skeletal and body and improve level of serving. They were suggested according to the highest ratings in both internal and external assessments in each neighborhood and the identified priority areas that were at the completion of field surveys of areas. The suggested items are presented as follows:

- Widening Tabarsi Blvd. in Ghadi Mahaleh and considering a space for public green space and sport equipments as a neighborhood park between Shrine of Imamzaedh Abdullah and Taleb Amoli Blvd in south side of Tabarsi Blvd;

- Plan of creating the mixed-driven commercial, office and residential axis along the Tabarsi Blvd in Chaksar, Paein Bazar, Ghadi Mahaleh and Kashi Mahaleh neighborhoods;
- Establishing fire stations in Chaksar Mahaleh between Mir Haydar Alley and Shahid Beheshti St. with an area of approximately 350 square meters on the north side of Tabarsi Blvd because of its proper widening;
- Widening sidewalks and streets less than five meters wide, in order to facilitate standardization of services and improve the textures of neighborhoods and paved roads (it should be noted that in some areas, due to high value historical buildings, there is not possibility of widening five meters completely. For this reason, in the areas, access to pedestrian and roads is considered as priority -to preserve and restore historical identity- that includes widening 3-5 meters);
- Allocating spaces to construct parking lots, in order to reduce and ease traffic in the neighborhoods;
- Considering spaces for medical, sporting, cultural, recreational and services applications to improve well-being of residents and enhance the quality of neighborhoods;

- Allocating pause and living spaces in areas as community center;
- Considering areas in Ghadi Mahaleh, Aspehkala, Ski Mahaleh and the old town to revive the ancient gates by emulating Amol map in the Qajar period and four principal gateways into the city

In addition to the above-mentioned structure suggestions in neighborhoods, there were provided strategies to recreate the worn out textures in Amol with the approach of urban sustainable development, depending on physical characteristics and requirements of different neighborhoods as well as inclusion of social, economic, environmental and housing conditions and increasing public participation. According to Figure 2 and higher weight in evaluation matrices as well as the author surveys, top priorities are as follows:

SO<sub>3</sub>: attracting private capital, due to high percentage of private property

SO<sub>5</sub>: promoting and strengthening the sense of belonging to a place among residents by creating symbols and ... in different parts of neighborhoods, especially at its center

SO<sub>6</sub>: optimal using neighborhood mosque as a cultural and information institution as well as social interactions

ST<sub>3</sub>: recruiting eager people in renovation to improve performance of improvement councils

ST<sub>6</sub>: considering long living history of people to conduct actions for renovating the texture

ST<sub>7</sub>: considering private property to restore old buildings

ST<sub>8</sub>: considering long-term and low interest loans for low-income residents

ST<sub>9</sub>: establishing the affiliated improvement and modernization branches on neighborhood centers

WO<sub>3</sub>: determining fines and regulations to obligate owners of the abandoned and inefficient spaces for renovation

WO<sub>4</sub>: determining appropriate conditions and facilities for allocation to owners of lands to the required uses

WO<sub>5</sub>: attracting private capitals to create tourism spaces and job creation

WT<sub>3</sub>: developing incentive programs to attract private investors in renovation and improvement affairs

WT<sub>4</sub>: rehabilitating the ruined and barren spaces and convert them to appropriate land uses and public open spaces to right attract people

WT<sub>5</sub>: using indigenous forces to participate in renovation and modernization

WT<sub>6</sub>: establishing supportive funds to bring order to financial situation of residents to renovate their residences and avoid more worn out

WT<sub>7</sub>: improving neighborhood structure according to modern applications and required for residents

## 7. Suggestions for Future Studies

As the research was conducted in field of organizing the worn out textures with sustainable development approach and as there are many measurement tools for this field, the following items are proposed for the future researchers:

- Examining factors affecting to increase public participation in the neighborhoods to organize the worn out textures using structural equation modeling technique;
- Examining the role of media in organizing the worn out textures with approach of information and increase public participation;
- Examining the role and weight of self-awareness, innovation and performance limitations in organizing the worn out textures with sustainable development approach;
- Examining performance of the Improvement and Modernization Organization to organize the worn out textures in Amol, in terms of land trial

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## COMPARE MUSCLE STRENGTH, RANGE OF MOTION AND ACTIVE AND PASSIVE GIRLS ELBOW JOINT PROPRIOCEPTION WITH PUBLIC HYPERMOBILITY SYNDROME AND HEALTHY

<sup>a</sup>SADAF KHODABANDEHLOO, <sup>b</sup>DR SYED SADREDDIN SHOJAEDDIN, <sup>c</sup>YAHYA SOKHANGOEI

<sup>a</sup>*MSc of Corrective Exercises and Sport Pathology, Department of Physical Education and Sport Sciences, Islamic Azad University Karaj Branch, Karaj, Iran*

<sup>b</sup>*Associate professor, Department of Physical Education and Sport Sciences, KHARAZMI University of Tehran, Tehran, Iran*

<sup>c</sup>*Assistant professor, Department of Rehabilitation sciences, Welfare and Rehabilitation sciences Tehran, Iran*

Email: <sup>a</sup>sadaf.khodabandeloh@gmail.com,

<sup>b</sup>Sa\_shojaedin@yahoo.com, <sup>c</sup>yahya.sokhanghoe23@gmail.com

**Abstract:** The aim was to compare muscle strength, motion range and proprioception elbow joint hypermobility syndrome girl's active and passive public. People with hypermobility by Beighton test and a minimum score of 5 identified to participate in the test, and universal goniometer used to detect hypermobility. All assessments to measure the motion range detector with flexible devices Leighton and measure muscle power and proprioception elbow with isokinetic device in two angles were 45 and 60 degrees. The results showed that muscle strength of elbow between active and inactive girls have hypermobility syndrome healthy and public there is a significant difference while the elbow joint proprioception between active and inactive girls have hypermobility syndrome and healthy and public there was no significant difference.

**Keywords:** muscular power, proprioception, range of motion, elbow joint hypermobility syndrome general.

### 1 Introduction

General public hypermobility or joint laxity is defined as the absence of synovial joints that most people have a more normal range and with nonspecific musculoskeletal complaints of the factors known to include both general and localized in the peripheral joints of the spine is a component (Smith 2005). Detailed pathological mode is not joint hypermobility but rather as an increase in joint mobility comes naturally. As noted hypermobility diagnosed with musculoskeletal symptoms and people with this condition often effects of joint instability such as recurrent dislocation, subluxation and twist, muscle and joint pain, repetitive complaints vague, non-injury-related chronic and sometimes not respond to drug therapy, anti-inflammatory and pain suffered (the Kessler Rvsk 1996 and 1999). Joint pain, chronic muscle in Hayprmybayl, due to postural imbalance, in the long term motor function of disorders caused and as well as pain caused delays caused by tension in the long run (Kessler, 1996).

#### 1.1 Problem statement

Hypermobility or domain more than normal in the joint, including the factors discussed in joint instability and the resulting damage, and people who have several active joint or joint range of motion in the joints of the body are affected public Shelley (Richard 2011 Russians, 2011). This diffuse and chronic pain patients often complain without any specific reason (Richard 2011). And variables such as age, gender, ethnicity, location and variation in diagnostic criteria leading to different reports about the incidence of this complication is (Ross, 2011). So that children are inherently more mobile than adults in their joints, and this gradually decreases with age. Recent studies have shown that hypermobility syndrome in children and adolescents has harmful effects is growing. So that a decrease in physical activity, fitness and bone mass in adulthood causes of decline in children's activities of daily living (Marcoleen 2009). Among the joints, the elbow joint with muscles and ligaments of multiple surrounding mobility and strength to perform fine motor and at the same time provides strong upper lateral limb. Without a doubt, make precise movements of the forearm, hand and fingers subject to appropriate joint proprioception. Otherwise the possibility of any acute injury and damage caused by hyperthyroidism and also there will be a drop in performance.

On the other hand the role of proprioceptive feedback loops that provide information capsule and Lykamnt of the coordination function of the muscle, joint stability has been well recognized (Joel Christensen, 2008). Elbow limb proprioception is probably also the upper hand proprioception and has a great impact on the movements of the body as a chain and since the only joint is one of the most joints in the body and in most sports and motor activities required human, understand the condition and range of motion in the joints, especially in the hyper-mobility of the utmost importance. On the other hand knowledge of muscle strength of this category of people is of particular importance. This study tries to answer the question of whether the muscle strength, proprioception and girls active and passive range of motion hypermobility syndrome healthy girls there are differences.

#### 1.2 Research purposes

The overall goal: Compare muscle strength, proprioception and range of motion the elbow joint hypermobility syndrome girls active and passive public and healthy

#### 1.3 Special Purposes

1. Compare elbow muscles active and inactive girls have hypermobility syndrome public and healthy
2. Comparison of the elbow joint proprioception active and inactive girls have hypermobility syndrome public and healthy
3. Compare the range of motion of the elbow joint hypermobility syndrome girls active and passive public has healthy

#### 1.4 Hypotheses

The main hypothesis: Between muscle strength, proprioception and range of motion of the elbow joint hypermobility syndrome girls active and passive public and healthy are differences.

#### 1.5 Specific hypotheses

1. Between the muscular strength of elbow joint hypermobility syndrome girls active and passive public and healthy are differences.
2. Between the elbow joint Proprioception hypermobility syndrome girls active and passive public and healthy are differences.
3. Between the range of motion girls active and passive elbow joint has Hypermobility syndrome public and healthy are differences.

#### 1.6 Defaults

A) Range or scope of the research:

The scope of this study encompasses both space and time. The research sample consisted of girls 16-14 years old territory that hypermobility syndrome in Karaj city schools. And the period of study, which is spring 2016.B)

B) Restrictions on out-of-control researcher:

- Psychological conditions of the subjects cannot be controlled.
- Living conditions and daily activity during the study subjects was rampant.

- Possibly damage the upper limb on the hypermobility of each person is different.

#### C) Limitations on self-control:

1. The subjects, all 16-14 year old girls ages hypermobility syndrome were selected.
2. None of the subjects have not a history of surgery of the elbow or elbow dislocation.
3. All subjects were selected from among active and inactive.
4. None of the subjects had at Championship level and all levels of physical activity were at the same level.

## 2. Background research

Certainly in every field in the first fundamental studies are needed to determine its basic principles and mechanisms. In recent years, a range of studies and research in the field of proprioception and hypermobility has been studied various issues associated with them. Investigate the causes of sports injuries prevention, treatment and recovery them crucial for researchers. Proprioception has been considered as one of the factors related to injuries. Also in the past decades has conducted a study to assess the public joint Shelley. In this section we will refer to some of these investigations.

Perany et al (2016) study compares the isometric strength of elbow and knee in adult men and women suffering have hypermobility syndrome with healthy people. The study, which included 106 adult men and women with hypermobility syndrome using isokinetic dynamometer to compare the isometric strength of elbow and knee patients and healthy people were studied. The results showed that isometric strength in men with hypermobility syndrome and healthy individuals is a significant difference. The results showed significant difference between healthy women and women with hypermobility syndrome does not exist.

Ranalta et al (2012) study examined the association between joint hypermobility public and increased risk of muscle disorders - skeletal paid from the general hypermobility. This study investigated the relationship between traumatic shoulder instability with joint hypermobility public. In this study, 100 patients with anterior shoulder dislocation general hypermobility that were treated with the arthroscopic method, in terms of Beighton criteria, in terms of general hypermobility of the joints were examined. The mean age of these patients was estimated at around 25 years. The patients with 100 healthy people matched for age and gender were similar to the first group, were compared. People in the control group, there is no history in terms of joint instability in the shoulder joints, did not Lygmany injury knee and lateral ankle sprain. This study showed no significant difference between the rate public joint hypermobility aren't two groups of patients and controls.

Chahal et al (2011) General hypermobility as a predictive factor for contralateral anterior shoulder dislocation were studied. 57 people with an average age of 30 years between 2006-2003 had suffered a shoulder instability were examined in this study. The control group in this study were 72 undergraduate students with no history of shoulder dislocation or damage were anterior cruciate ligament. Two study groups in terms of age and gender matched. The results showed that the prevalence of general hypermobility study groups (5.32 percent), compared with the control group (10.4 percent) was higher. In addition, the increase in external rotation in the opposite shoulder, compared with the control group was approximately 2-fold.

Vaktr Robinson (2011) study on public hypermobility in people who shoulder stability, are carried out under review. In this study, 21 patients and 46 patients with shoulder stabilization under review collarbone fracture were studied as a control group. All of these individuals were obtained from a series of treatment centers. In addition first obvious stability and cause of injury in these patients was studied. Clinical assessments were also

carried out to assess the general hypermobility by Beighton criteria were investigated. People who have a score of 4 or higher in Beighton criteria, as people were considered Hayprmbayl. Most methods used to stabilize the joint open surgical technique and the most common cause of fractures in the control group was traumatic fracture type. 61% of people have Beighton score of 4 or higher. The result of this study showed that the prevalence of general hypermobility shoulder stabilization in people who have been under review, are common. The main cause of fractures, traumatic causes. People with general hypermobility increased fracture rate after the initial surgery and then had shoulder stability and rehabilitation should be followed.

Westling et al (2010) study the relationship between general hypermobility and TMJ joint destruction. In this study, 96 girls and 97 boys 17 years old through Baton methods were evaluated. TMJ joint evaluation was carried out through auscultation by stethoscope. The relationship between visible signs of clinical auscultation and self-reported symptoms were shaken, were studied. The prevalence of symptoms in adolescents with general hypermobility of joint destruction temporomandibular, the Beighton score above 9.5 was more. People with more hypermobility, Oral parafunction higher score indicating a direct relationship between general hypermobility signs and symptoms of dysfunction was Cranio- mandibular.

Vahdat et al (2016), Assessment of biomechanical structure of the passive resistance torque on the elbow joint and its application in training facilities and their rehabilitation. Eight healthy men without problems and a history of previous impairment in neuromuscular system based on height and weight coefficient participated in this study. Five elbow flexion passive range of motion at speeds of 15 and 45 degrees per second in zero to 130 degree per second isokinetics box was conducted by the dynamometer at the same time, muscle EMG activity was recorded. The results include optimized to achieve the motion, reducing joint damage and as well as reducing energy waste by natural resistance mechanisms involved moving tissue to create a mechanism of resistance in the equipment on the motion was carried.

Arab and colleagues (2013), during a study examined the association's general hyper mobility and arch feet in the healthy girls. 50 people participated in this study. Determining the degree of hyper-mobility of people using the Beighton criteria and measuring arch using the footprint was conducted. The results showed that people with more hypermobility have less arch feet. This relationship may be due to ligament laxity and loss of their consistency.

Nodehi et al (2013), a study designed to compare the static situation the shoulder in women with general hypermobility discussed with healthy individuals. In this study, 30 women with general hypermobility with 30 healthy subjects matched for the side slip shoulder of the vertebrae of the spine in three different modes were compared. Involves Status: shell hands beside the body, Situation abduction of 45 degrees and Situation abduction of 90 degrees with maximum internal rotation. This study showed that only in a situation that is on the side of the body, the distance between the shoulder and thoracic spine between the two groups was significant and in other situations difference is meaningless.

Khalkhali et al (2013) study to examine the knee proprioception in patients with public joint hypermobility and discussed comparison with healthy individuals. Subjects included 20 patients with general hypermobility in the knee and 20 healthy subjects with age ranging 18 to 30 years. Error sense of the situation in the three angles of 15-45 and 60 degrees of active knee extension in sitting position by using a goniometer, digital images, measured by AutoCAD software and the two groups were compared at different angles. The results showed important that young people suffering knee joint position sense joint mobility less than healthy individuals. The knee joint position

sense in the end both sides were more accurate than the more internal angles.

### 3. Research Methodology

The study is quasi-experimental comparison. The sample consisted of 40 students of Karaj city schools with an average age of 14 to 16 years who are enrolled in the academic year 2016. In four groups, 10 active students with hypermobility, 10 disabled students with hyper-mobility, 10 healthy active students and 10 disabled healthy students, is divided. Students with and without hypermobility in organized sports on a daily basis or weekly basis during the last two years have participated and healthy children as well as with Disable hyper-mobility the past 2 years have not had any regular exercise. Non-random sampling method is selective, where researchers muscle strength, proprioception and range of motion of the elbow joint cross compare the groups.

#### 3.1 Research variables:

Criterion variable: the elbow joint hypermobility

The predictor variables: 1. Elbow muscle strength 2. The range of motion of the elbow joint 3. The elbow joint proprioception

#### 3.2 Measuring tool:

- Consent forms and collect data
- Casio digital scale model made in Japan to measure the Weight
- Height gauge to measure the wall height
- Beighton Beighton test for the diagnosis of the syndrome with Hyper-Mobility
- Universal goniometer to determine the range of motion in helping with diagnosis of hyper-mobility syndrome
- (Biodex isokinetic dynamometer system build-America) to measure isometric strength and proprioception elbow
- Flexible Leighton gauge to measure the range of motion
- Bed laboratory measurement to measure the range of motion of the elbow joint

#### 3.3 Statistical Methods:

In order to study and statistical analysis of raw data obtained from research, descriptive and inferential statistics were used. The descriptive statistics of mean and standard deviation were used to describe the data and determine the differences between the groups. The Kolmogorov-Smirnov test was used for data normalization. The descriptive statistics to test the equality of variances Lone statistic was used and in case of heterogeneity of variance, the test analysis of variance (ANOVA) (inter and between group) (at 95%) was used to assess differences between means. If the difference between the mean in relation with groups was significant, post hoc test (post hoc (Tukey)) was used to determine significant differences between the groups. This hypothesis was tested using SPSS version 22.

#### 4. Analysis of the findings:

1. Compare elbow muscles active and inactive girls have healthy and public hypermobility syndrome (H1):

The results of the study (H1) showed that between active and passive muscle strength of elbow general hypermobility syndrome and healthy active and inactive girls have significant differences. Results of this study with the results of studies Perani et al (2016) and Fatou et al (2008) in this field were consistent. According to the study of perani et al muscles in women with hyper-mobility in the development of more power compared to healthy women. Resources Development is an important factor for joint stability and since people with public joint hypermobility due to shell passive structures, they may have less joint stability neuromuscular mechanisms such as the development of joint forces to rely more stable. This study did

not measure the amount of force development so we can determine that if we use this hyper-mobility of the affected elbow flexors power or not. Fatou and colleagues showed that muscle torque in the hyper-mobility is high. And with the results of studies of Sahin et al (2008) was inconsistent because of this difference can be traced to several factors: In the Perani and colleagues were the main cause of the age difference could be that included adults were and hypermobility syndrome intensity decreases because age increases and As well as muscle strength decreases with increasing age, while in this study subjects were girls ages 14-17 years and because of the disparity in study Sahin et al isokinetic strength of knee flexor muscles was evaluated while in this study isometric strength of elbow flexor muscles were examined. And it should be noted that the type of muscle contraction in the torque (power) is very important. Hypermobility was one of the precipitating factors, and can even lead to premature osteoarthritis is pyrophosphate deposition.

2. Compare elbow joint proprioception girls active and inactive with general hypermobility syndrome and healthy (hypothesis 2):

Below contains the first hypothesis: the results of this study (hypothesis 2) showed, proprioception 45-degree angle at the elbow joint hypermobility syndrome less than healthy group inactive proprioception, but this difference was not significant.

Below contains the second hypothesis: the results of this study (hypothesis 2) showed, proprioception 45-degree angle at the elbow joint hypermobility syndrome active girls, less than healthy group active proprioception, but this difference was not significant.

Below contains the third hypothesis: The results of this study (hypothesis 2) showed, Proprioception 60-degree angle at the elbow joint hypermobility syndrome inactive girls, less than healthy group inactive proprioception, but this difference was not significant.

Below contains fourth premise: The results of this study (hypothesis 2) showed,

Proprioception 60-degree angle at the elbow joint hypermobility syndrome active girls, less than healthy group active proprioception), but this difference was not significant.

Results of this study in the field with the results of the study Fatou et al (2008), Sahin and colleagues (2008), Rosie (1999), BasvIntl (1995), Zemek et al (1996) outside the country, khalkhali and et al. (2013), Jadidian (2009) in the interior consistent with the results of the study Wolfgang et al. (2004) and Stillman (2002) was inconsistent.

The reason for this disparity in Wolfgang et al study that examines the proprioception of shoulder joint after surgery in patients with joint instability paid in kind could be examined in detail. The research Wolfgang et al. (shoulder joint), while in the elbow joint study in study subjects with joint instability Wolfgang, who previously had been operated hypermobility word is quite different from instability. Hypermobility demonstration of excessive laxity or increasing the length of the tissue, while increasing instability of motion, Steve kinematics and is Artrokinmatik and muscle and muscle control not possess any protective role, whereas people with hypermobility no signs of instability, but in the current study subjects not undergone any surgery and only with joint hypermobility syndrome were elbow and due to differences in study Stillman and colleagues varied the type of joint involved and the investigation was done on the knee joint, the age range of the subjects was 29 to 18 years, while in this study participants comprised students 14 to 17 years, gender is also a contributing factor in failure to comply in Stillman and colleagues study participants were men and women, while the present study subjects were only women.

3. Compare the range of motion of the elbow joint girls active and inactive with general hypermobility syndrome and healthy (hypothesis3):

Results of this study (H3) showed, between range of motion of the elbow joint active and inactive girls with hypermobility syndrome general and healthy there is a significant difference. Results of the present research in this field with the results of the study Chahal et al. (2011) and Gedaliah et al (1993) abroad and the Arab and cooperation within the consonants, According to the Arab and colleagues studied people who are more general hypermobility, because ligaments largely have lost their consistency, was not able to maintain the overall structure of joints, in fact, by increasing general hypermobility criteria such as consistency ligaments decreases cause range of motion is too joint and with results of the study Ranalta et al (2012) was inconsistent. The cause of this discrepancy can be in several factors, in the study Ranalta et al, subjects that people with a history of anterior shoulder dislocation were treated with the arthroscopic method, however, in present study people any history of dislocation

Or elbow joint had no previous injury and as well as the type of joint involved in the study Ranalta and colleagues who shoulder joint was different with present study and Average age in the study Ranalta et al 25 years. But in the present study was an average age of 15 years. According to the study, Graham and colleagues (1990) age is also a contributing factor in an article entitled hypermobility syndrome, to express the history of general hypermobility have paid and its severity in children are most commonly mentioned. It also stated that from the rate of hypermobility decreases with age. In addition, hypermobility is more prevalent in women than men mentioned in your article and general hypermobility more joints than the more common single-joint hypermobility have stated. Also general hypermobility abundance variation in different races stated.

**4.1 First hypothesis**

Between the muscle strength of elbow active and inactive girls with general hypermobility syndrome and healthy there are differences.

Table 1 results of Tukey post hoc test in comparison isometric strength of the groups.

Groups	Mean difference	P
Inactive healthy - Active healthy	7.85	0.032
Active healthy - Active hypermobility	1.93	0.893
Active healthy - Inactive hypermobility	4.69	0.329
Inactive healthy - Active hypermobility	9.78	0.005
Inactive healthy – Inactive hypermobility	3.16	0.656
Active Hypermobility - Inactive hypermobility	6.62	0.090

At the level of  $p < 0.05$  was significant

According to Tukey test results are shown in Table1:

- Between the elbow muscle strength in healthy inactive girls with active healthy group ( $p = 0.032$ ) and active hypermobility ( $p = 0.005$ ), there was a significant difference.

- The muscle strength of elbow joint hypermobility group inactive more than three groups, but this difference was not statistically significant.

In Figure 1, means and standard deviations muscle strength of elbow active and inactive girls with general hypermobility syndrome and healthy viewing.

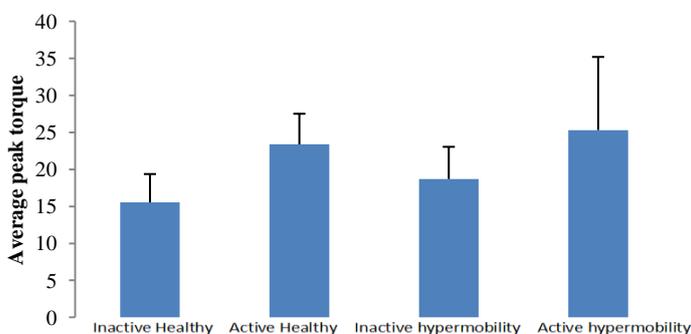


Figure (1) Average isometric strength

**4.2 Second hypothesis**

Between elbow joint proprioception active and inactive girls with general hypermobility syndrome and healthy there are differences.

Table 2 Results of Tukey post hoc test in comparison Proprioception angle of 45 degrees in the groups

Groups	Mean difference	P
Inactive healthy - Active healthy	2.43	0.746
Active healthy - Active hypermobility	0.71	0.991
Active healthy - Inactive hypermobility	3.07	0.586
Inactive healthy - Active hypermobility	3.14	0.568
Inactive healthy – Inactive hypermobility	5.50	0.122
Active Hypermobility - Inactive hypermobility	2.63	0.763

Table 3 Results of Tukey post hoc test in comparison proprioception angle of 60 degrees in the groups

Groups	Mean difference	P
Inactive healthy - Active healthy	3.90	0.73
Active healthy - Active hypermobility	3.83	0.579
Active healthy - Inactive hypermobility	0.24	1
Inactive healthy - Active hypermobility	6.92	30.11
Inactive healthy - Inactive hypermobility	3.33	0.682
Active Hypermobility - Inactive hypermobility	3.59	0.629

According to Tukey test results are shown in the table above:

- Proprioception angle of 45 degrees elbow inactive girls with hypermobility syndrome less than proprioception inactive healthy group but this difference was not significant ( $p = 0.12$ ).
- Proprioception angle of 45 degrees elbow joint in active girls with hypermobility syndrome less than proprioception active healthy group, but this difference was not significant ( $p = 0.99$ ).
- Proprioception angle of 60 degrees inactive the elbow joint in girls with hypermobility syndrome less than

proprioception inactive healthy group, but this difference was not significant ( $p = 0.68$ ).

- Proprioception angle of 60 degrees elbow joint in active girls with hypermobility syndrome less than proprioception active healthy group, but this difference was not significant ( $p = 0.57$ ).
- Figures 4-2 and 4-3 Proprioception means and standard deviations angles of 45 and 60 degrees elbow active and inactive girls with general hypermobility syndrome and healthy is showing.

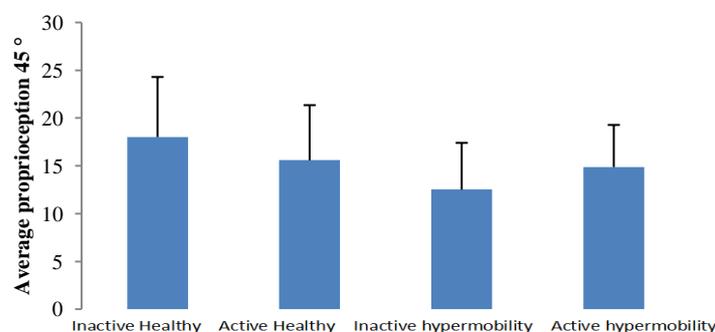


Figure (2) Average 45-degree angle elbow joint proprioception

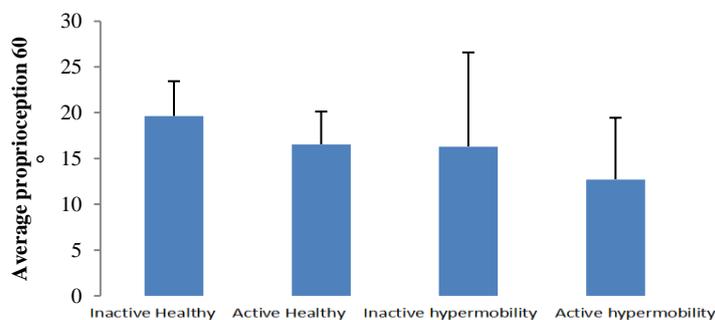


Figure (3) Average 60-degree angle elbow joint proprioception

#### 4.3 The third hypothesis:

Between range of motion elbow active and inactive girls with general hypermobility syndrome and healthy there are differences (table 4).

Table 4 Results of Turkey test the range of motion in comparison the elbow joint in the groups

Groups	Mean difference	P
Inactive healthy - Active healthy	2	0.714
Active healthy - Active hypermobility	10.3	0.001
Active healthy - Inactive hypermobility	6.30	0.010
Inactive healthy - Active hypermobility	8.30	0.001
Inactive healthy - Inactive hypermobility	4.30	0.120
Active Hypermobility - Inactive hypermobility	4	0.164

According to Tukey test results are shown in the table above:

- Between range of motion of the elbow joint inactive healthy girls with active hypermobility group ( $p = 0.001$ ), there was a significant difference.
- Between range of motion of the elbow joint active healthy girls with active hypermobility group ( $p = 0.001$ ), there was a significant difference.
- The range of motion elbow joint hypermobility groups active was more compared to deactivate hypermobility but this difference was not significant ( $p = 0.16$ ).

- The range of motion the elbow joint disable healthy group was more compared to active healthy group but this difference was not significant ( $p = 0.714$ ).

Figure (4) Show the mean and standard deviation range of motion of the elbow joint active and passive girls with general hypermobility syndrome and healthy.

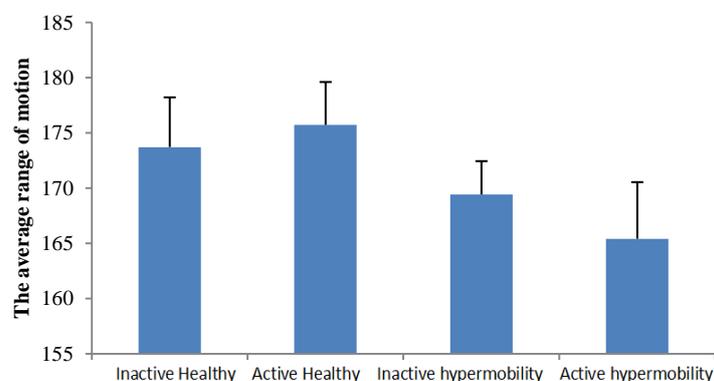


Figure (4).The average range of motion of the elbow joint

## 5. Conclusion:

In this study, three variables of muscle strength, proprioception at angles of 45 and 60 degrees and range of motion of elbow joint, active and inactive girls healthy and with general hypermobility syndrome was evaluated and the results showed that muscle strength elbow joint between the active and inactive girls with general hypermobility syndrome and healthy, there is a significant difference. While between the elbow joint Proprioception active and inactive girls with general hypermobility syndrome and healthy, there was no significant difference. Also amount Proprioception in hypermobility active and inactive angles 45 and 60 degrees relative to the control group decreased, but the decrease is not significant. Also between range of motion active and inactive girls elbow joint with general hypermobility syndrome and healthy significant difference was observed.

## 6. Suggestions:

### Suggestions arose from study:

- The results showed that muscle strength elbow joint between the active and inactive girls with general hypermobility syndrome and healthy, are difference. Therefore, measuring the power in this people in order to choose sports teams and also to prevent the possibility of injury is suggested.
- According to lower elbow joint Proprioception active and inactive girls with hypermobility syndrome compared to active and inactive healthy to trainers recommended that special exercises to improve proprioception in people with hypermobility syndrome in school athletic programs should be used.

Due to significant differences in range of motion in the elbow joint active and inactive girls with general hypermobility syndrome and healthy, assessment of range of motion girl students In order to detect and prevention of problems associated with this syndrome and avoid forbidden actions in sport for detected offered to trainers.

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## FACTORS AFFECTING RISK-TAKING OF INVESTORS IN ARAS FREE ZONE

<sup>a</sup>RAMIN ZAREI, <sup>b</sup>HAKIMEH NIKI ESFAHLAN

<sup>a</sup> M.Sc. Student, Faculty of Management, Islamic Azad University, Jolfa International Branch, Jolfa, Iran

<sup>b</sup> Assistant Professor, Faculty of Management, Islamic Azad University, Jolfa International Branch, Jolfa, Iran  
Email:<sup>a</sup>ramin.zarei.19@gmail.com,<sup>b</sup>h\_niki\_esf2010@gmail.com

**Abstract.** This research is applied in terms of purpose and is descriptive and correlation type in terms of data collection method. The study population consisted of all active investors of Aras Free Zone Organization that is a limited community including 460 investors. Statistical sample of research is a part of this population that 210 samples were selected based on Krejcie and Morgan table according to the 460-person sample size for community using available sampling method. Researcher made questionnaire was used to collect data that its validity is confirmed by 10 experts, including supervisors and specialists and reliability coefficient is estimated 0.86 through Cronbach's alpha. The research results show that investigated factors of research are effective on investors risk taking in Aras Free Zone.

**Keywords:** Educational-psychological factors, social factors, cultural factors, political factors, economic factors, managerial-administrative factors, geographic and risk taking

### 1. Introduction

Investment is of important economic variables that have always allocated major issues to itself and different schools of thought, have presented different definitions of investment. Theoretically, about the role of capital, economists believe that capital is a necessary condition for economic growth and development. Private sector investment has characteristics that gives it special importance in economy of that country (Ghanbari et al. 2007). According to occurred changes in today's world, especially in developing countries that are faced with numerous threats, these countries to solve their economic problems need proper planning to make better use of their facilities and God-given riches. In this regard, one of the main strategies, is expansion and developing investment (Modarres and Hesarzadeh, 2008) which investment is always associated with various for investors, so researcher in present study tries to investigate factors affecting risk taking of investors in Aras Free Zone.

### 2. Research Hypothesis

- Psycho-educational factors are effective on risk taking of investors in Aras Free Zone.
- Social factors are effective on risk taking of investors in Aras Free Zone.
- Cultural factors are effective on risk taking of investors in Aras Free Zone.
- Political factors are effective on risk taking of investors in Aras Free Zone.
- Economic factors are effective on risk taking of investors in Aras Free Zone.
- Management-administrative factors are effective on risk taking of investors in Aras Free Zone.
- Geographical factors are effective on risk taking of investors in Aras Free Zone.

### 3. Research method

Present study is applied in terms of purpose and is descriptive and correlation type in terms of data collection. It is applied because it follows new knowledge that has certain applications on product or process in fact. It is descriptive because it describes and interprets whatever is and focuses on conditions or existing relations, common beliefs, ongoing processes, clear effects or expanding trends. Statistical population of research, based on official figures of Aras Free Zone, includes all active investors of this organization that is a limited community including 460 investors. And also for 460-person community sample of 210 persons is selected. To collect research data both library and field studies have been used and finally collected

data are entered into SPSS after sorting, and statistical analysis have been done on them.

### 4. Research background

Douglas (2010) in his study concluded that venture investors play a major role in creating added value in investee entrepreneurial firms by providing advice in the areas of financial, administrative, marketing and strategic issues. Also accessing network of accounting consultants, lawyers, banks and financiers, and other professional firms in the subject provide Investee Company's activity.

Barokomora (2010) in the joint research have examined major obstacles of investment in developing countries. They divided obstacles into 2 formal and informal categories. According their findings the most important formal obstacles of investment in the studied countries include capital account restrictions, legal obstacles, problems of taxation system and informal obstacles included political risks, institutions, lack of rule of law, administrative corruption, economic instability and currency risks. In total, two types of formal and informal obstacles represent investment risk levels in different countries.

Jyaraman (2001) study examined investment status in less developed countries with special attention paid to Fiji. Her research results that are applicable to many countries with similar economic structure, Represents a significant and negative effect of private sector investment of these countries on inhibiting factors such as regulation weakness, poor economic infrastructure, corruption and bribery and other factors that causes an increase in the cost of risk in the studied countries.

Abzari et al. (2014) have done a study entitled "Factors Affecting the risk and return on investment in financial products" the results of which is as follows: Macro-economic factors affecting the systematic risk of investment in financial products, microeconomic factors affecting unsystematic risk of investment in financial products and non-economic factors affecting overall risk of investment in financial products. On the other hand, non-economic factors of risk perception with willingness to investment risk has negative correlation, historical return rate positively correlated with willingness to risk, perceived risk is negatively correlated with the rate of expected return, Information on past performance is positively correlated with the expected rate of return.

Bahraini and Malek Alsadaty (2012) in a study entitled "Institutional obstacles to investment and doing business in Iran" reviewed business environment in Iran and compared it with other countries and according to results, insecurity and concerns of investors and business people in Iran regarding unpredictability of changes in laws and policies, the government is not committed to the policy announced, not into play investors and business people in the process of legislation and new policies, suddenly cancel current rules and regulations by the government, the incidence of major changes in rules and policies after the election (in case of changing government) and introduced several other factors as the main factors increasing the risk of investing in the country.

### 5. Data analysis

#### 5.1. Demographics

##### 5.1.1. Distribution of respondents' age

Table 1 is related to the age of the respondents to research questionnaires. As can be seen in table 11.4% of whole sample aged 21 to 30 years, 29.5% are in the age group of 31 to 40 years, 43.8 percent aged 41 to 50 years and 15.2 percent are 51 years and older.

Table 1: Frequency distribution and percentage of respondents by age

age group	Frequency	Percentage
21 to 30 years	24	11.4
31 to 40 years	62	29.5
41 to 50 years	92	43.8
51 years and older	32	15.2
Total	210	100

### 5.1.2. Distribution of respondents' gender

Table 2 is allocated to gender of respondents. As the table shows of a total of 210 persons of investors that were evaluated in this study, 98.1 percent are men and 1.9% are women.

Table 2: Distribution of respondents' gender

gender	Frequency	Percentage
Men	206	98.1
women	4	1.9
total	210	100

### 5.1.3. Distribution of respondent's degree of education

Table 3 is related to the education degree of the respondents to the questionnaire of research. As can be seen in Table of the total review sample 3.3 percent have educational Degree lower diploma, 11.9 percent have a secondary diploma, 18.6 percent have Associate Degree, 8 percent have Bachelor's degree and 11.4 percent have Master's degree or higher.

Table 3: Frequency distribution and percentage of respondents according to degree

Educational	Frequency	Percentage
Lower	7	3.3
Diploma	25	11.9
Associate	39	18.6
Bachelor's	115	54.8
Master's	24	11.4
total	210	100

### 5.1.4. The distribution of participants by type of investment

Table 6: Descriptive Table research components

research components	size	average	median	mode	variance	minimum	maximum
Educational-psychological factors	210	3.621	3.600	3.60	0.482	1.40	5.00
social factors	210	4.108	4.200	4.00	0.199	3.00	5.00
cultural factors	210	3.692	3.800	3.80	0.299	2.20	5.00
Political factors	210	3.895	4.000	4.40	0.475	1.00	5.00
Economic factors	210	4.105	4.200	4.20	0.183	2.80	5.00
Managerial-administrative factors	210	4.081	4.000	4.00	0.187	2.80	5.00
Geographical factors	210	3.917	4.000	4.00	0.238	2.80	5.00
risk taking	210	3.455	3.400	3.40	0.232	2.40	4.80

### 5.3. Examining normality of variables distribution

Table 4 is related to the type of investment of respondents to the questionnaire of research. As can be seen in Table 1.4% of whole sample are active in primary industries, 45.7 percent in manufacturing companies, 16.2 percent in service section and 36.7 percent in other types of investment.

Table 4: Frequency distribution and percentage of participants according to the type of investment

type of investment	Frequency	Percentage
primary industries	3	1.4
Manufacturing industries	96	45.7
service section	34	16.2
Other activities	77	36.7
total	210	100

### 5.1.5. Distribution of respondents based on the time spent in Aras Free Zone

Table 5 is concerning the duration of presence of reviewed investors of this study in Aras Free Zone. As seen in the table of the total review sample 28.1% is less than 2 years, 35.7 percent of 2 to 4 years, 21.0 percent 4 to 6 years and 15.2 percent 6 years and above that have invested in Aras Free Zone.

Table 5: Frequency and percentage of respondents based on time spent in Aras Free Zone

Time Spent	Frequency	Percentage
Less than 2 years	59	28.1
2 to 4 years	75	35.7
4 to 6 years	44	21.0
6 years and higher	32	15.2
Total	210	100

### 5.2. Central characteristics and dispersion of research variables

For factors affecting the risk taking of investors in Aras Free Zone and also for risk-taking, the sample size, average, median, mode, variance, minimum and maximum are calculated in detail which are given in Table (4-6).

Kolmogorov - Smirnov've test is used in order to evaluate the normality of variable distribution. In this normality test of

variable distribution the null hypothesis is variable and opposite hypothesis refers to the abnormal distribution. If the significance

level of test is less than 0.05 the null hypothesis is rejected and it is conclude that the target variable distribution is not normal.

Table 7: The results of Kolmogorov - Smirnov test to study the normality of variable distribution

Dimensions	size	Z-statistic of Kolmogorov-Smirnov	significance level
psycho-educational factors	210	1.351	0.052
social factors	210	1.314	0.063
cultural factors	210	1.354	0.051
Political factors	210	1.329	0.058
Economic factors	210	1.344	0.054
Managerial-administrative factors	210	1.351	0.052
Geographical factors	210	1.322	0.061
risk taking	210	1.354	0.051

5.4. Testing hypotheses of the study

Regression analysis was used to test the hypotheses that the results are as follows:

5.4.1. The first hypothesis: the psycho-educational factors are effective on risk taking of investors in Aras Free Zone

Initially linearity of the relationship between variables is confirmed using ANOVA test that the results are in Table 8:

Table 8: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.348	1.500	0.022
Residual	208	0.232		
Total	209			

As specified in the table, amount of significance level is 0.022 which it is smaller than the 0.05, so linearity assumption of model can be approved. Now, the impact of psycho-educational

factors on risk taking of investors in Aras Free Zone can be predicted using Table regression analysis that the results are given in Table 9:

Table 9: The results of regression analysis test to examine the effect of psycho-educational factors on risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		18.333	0.000
psycho-educational factors	0.850	12.291	0.022

Given that the sigma test is smaller than 0.05, it can be stated that Psycho-educational factors affect amounted to 0.85 on risk taking of investors in Aras Free Zone and with increasing of one unit on the amount of the psycho-educational factors, the risk taking of investors in Aras Free Zone will be changed as much as 0.85 units.

5.4.2. The second hypothesis of the research: social factors are effective on the risk taking of investors in Aras Free Zone

Table 10: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.487	2.107	0.048
Residual	208	0.237		
Total	209			

Table 11: regression test results to examine the impact on social factors on risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		9.775	0.000
social factors	0.100	1.451	0.048

**5.4.3. The third hypothesis of research: cultural factors are effective on the risk taking of investors in Aras Free Zone**

Table 12: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.040	0.174	0.007
Residual	208	0.233		
Total	209			

Table 13: regression test results to examine the impact of cultural factors on the risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		15.573	0.000
cultural factors	0.290	0.409	0.007

**5.4.4. Fourth research hypothesis: Political factors are effective on the risk taking of investors in Aras Free Zone**

Table 14: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.602	2.611	0.008
Residual	208	0.231		
Total	209			

Table 15: regression test results to examine the impact of political factors on the risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		16.544	0.000
political factors	0.480	8.333	0.008

**5.4.5. Fifth hypothesis of research: economic factors are effective on risk taking of investors in Aras Free Zone**

Table 16: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.000	0.000	0.006
Residual	208	0.231		
Total	209			

Table 17: Results of regression tests to examine the impact of economic factors on risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		10.721	0.996
political factors	0.001	0.005	0.006

**5.4.6. Research sixth hypothesis: management-administrative factors are effective on the risk taking of investors in Aras Free Zone**

Table 18: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.109	0.470	0.004
Residual	208	0.233		
Total	209			

Table 19: Results of regression analysis to evaluate the effect of management-administrative factors on risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		11.595	0.000
management-administrative factors	0.470	5.233	0.004

**5.4.7. Research seventh hypothesis: geographical factors are effective on the risk taking of investors in Aras Free Zone**

Table 20: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	1	0.418	1.808	0.000
Residual	208	0.231		
Total	209			

Table 21: Results of regression tests to assess the impact of geographical factors on the risk taking of investors in Aras Free Zone

model	Standardized coefficients	t	significance level
	Beta		
(Constant)		11.495	0.000
geographical factors	0.093	1.345	0.000

**5.5. Multiple regression test**

First, linearity of relationship between variables is confirmed using ANOVA test that the results are given in Table (4-22).

Multiple regression test results is as follows:

Table 22: The results of ANOVA test

Model	freedom degree	Mean Square	F	significance level
Regression	7	0.324	1.413	0.002
Residual	202	0.229		
Total	209			

As specified in the table the amount of significance level is 0.002 that because it is smaller than the 0.05, So linearity assumption of model can be approved. Now, using multiple

regression analysis table, the effect of each of research variables on the risk taking of investors in Aras Free Zone are given in Table (4-23).

Table 23: Results of regression testing to examine the impact of research variables on the risk taking of investors in Aras Free Zone

Model	Standardized coefficients	t	significance level
	Beta		
psycho-educational factors	0.205	3.368	0.032
Social factors	0.111	1.511	0.015
Cultural factors	0.101	1.583	0.005
Political factors	0.128	0.260	0.009
Economic factors	0.021	1.831	0.001
management-administrative factors	0.120	0.305	0.006
geographical factors	0.101	0.747	0.049

Results in Table 23 shows linear multiple regression test of the effect of each of the factors affecting risk taking of investors in Aras Free Zone.

**6. Conclusion**

The first research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that psycho-educational factors affect risk-taking of investors in Aras Free Zone in amount of 0.85 that the amount of this impact is high.

The second research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that social factors affect risk-taking of investors in Aras Free Zone amounted to 0.10, results of this study is consistent with Rahbari, (2008) studies that in a joint study have examined obstacles of investment and its impact on economic growth in Iran and in this study, the positive impact of social factors on the risk taking of investors has been approved. Also the results of the present study is consistent with studies of Karimzadeh (2010) that in a study examined the obstacles of production in Iran and called them "factors that increase the risks of investment" in the country and assess the impact of social factors on these risks as positive.

The third research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that cultural factors affect risk-taking of investors in Aras Free Zone amounted to 0.29. Results of this study is consistent with studies of Rahbari, (2008). Also the results of the present study is consistent with studies of Goladestone et al. (2004) that and showed in their research that in Canadian companies backed by venture capital, trading sales have been doubled common than initial public offering of take stock.

The forth research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that political factors affect risk-taking of investors in Aras Free Zone amounted to 0.48. Results of this study is consistent with studies of Rahbari, (2008).

The fifth research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that economic factors affect risk-taking of investors in Aras Free Zone that the extent of this impact is very minor. Results of this study is consistent with studies of Rahbari, (2008).

The sixth research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that management-administrative factors affect risk-taking of investors in Aras Free Zone amounted to 0.47. Results of this study is consistent with studies of Karimzadeh (2010).

The seventh research hypothesis is confirmed, linear regression test was used to assess this hypothesis, since the test sigma is smaller than 0.05, it can be stated that the geographic factors affect risk-taking of investors in Aras Free Zone amounted to 0.093. The results of the present study is consistent with studies of Gladestone et al. (2004).

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## THE COMPARATIVE INVESTIGATION OF ACADEMIC ACHIEVEMENT THROUGH COLLABORATIVE LEARNING WITH INDIVIDUAL LEARNING SYNTAX LESSON OF THE ARABIC LITERATURE STUDENTS AT THE UNIVERSITY OF ZABOL

\*ELHAM GHORBANI

*<sup>a</sup>Instructor, Department of Arabic Language and Literature, University Of Zabol*

*Email: eghorbani@uoz.ac.ir*

**Abstract.** The academic achievement was investigated comparatively through collaborative learning with individual learning syntax lesson of the Arabic literature students at the University of Zabol. This test involves a test of 20 questions that measure the different levels of knowledge. In this case that after the same training to both groups, students studied individually in the individual group and learned collaboratively in the collaborative group. The results show that: teaching with individual method is effective on learning and leads to increase post-test scores of them. But participatory techniques had more effective compared to individual learning in terms of understanding and comprehension and analysis power. But in terms of remembering, remembering and judgment, participatory method had not difference with individual method.

**Keywords:** Arabic grammar, participatory methods, solo, University of Zabol

### 1. Introduction

The education is one of the most effective means that training provides it. So, the method of teaching is significant and important. And teachers of our time have great emphasis on teaching methods are based on thought. Because there is evidence that collaborative learning groups achieved higher levels of thinking and keep out information and findings longer than learners who act solo. Learning through cooperation was introduced at the beginning of the last century by John Dewey, and is one of the permanent topics in education. Research shows that this type of learning put responsibility on students and involve them in the learning process. And the foundation of this method is the formation of a learning team. In the past it was believed that only silence and lack of exercise classes, were real learning classes. At the time, the training managers walk in the blackout corridors and waiting to hear the slightest sound, to control their classes. Today, it is recommended that teachers and educators used programs and methods that invite students to express their opinions and participate in learning. The reaction of some to this proposal is that they in fact acted as a group and set down collaborative learning in their classroom. So what is new in-between? In fact, a few teachers and lecturers can provide collaborative learning situations. Because institutions teach students to accept adult roles, and because participation will form a major part of adult life, it is expected that educational institutions, underscored the cooperative activities.

### 2. The expression of the problem

The role of new education is that it flourished people's talents and abilities and prepared them to participate in society activities. Achieving these goals requires a favorable change in learner's behavior. due to the rapid changes that occur in sciences, our learners need ways through which learners achieved learning skills so that they can learn sciences better and faster and along with the advancements. There are many ways to learn. Some of these methods is based on the memories and memory. And learners merely to keep the matters provided by the teacher, but some learning methods force person to think. In these ways, not only individuals haven't passive state, but also learns quite actively, among these methods, it is cooperative learning method that person works in the group and learns in the group. Collaborative learning is not limited to a particular method, but also including a wide range of methods through which classroom was organized and run flexibly and yet efficiently, and each of teacher can use a form of that according to the conditions, situations and his philosophy (Hashemi et al., 2015). collaborative learning doesn't mean the grouping students based on the same talents, on the contrary, any size

heterogeneity of team members be more in terms of culture, intelligence and academic achievement and ... participatory approach will be more effective (Shabani, 2009). In other words, collaborative learning is proposed the truth as a solution to deal with hordes of education problems. This learning is remembered mostly as means for strengthening thinking skills and enhance systematic learning level, compensatory educations or special educations and improve communication between students of different races together and prepare them to take part in group and participatory activities (Sepehrian and Azar, 2016). but individual learning methods in this study, is learning that each of the students alone without help or helping others and without formation of a classroom or home learning groups study and learn subject taught by teacher (Canaani, 2000). that individual learning levels is to be noted that knowledge (remembering) is in the its first level knowledge is that learner can provide evidence by the recalling or recognition stating that he has remembered the experienced phenomenon or thinking during training. Understanding (perception) of learning at this level is the ability to understand the meaning of a story, and explain it with statements that the person makes his own, without the content with other content communicate. Analysis, in the analysis, breaking down matter to its constitutive components and finding relationships between components and how organizing they are stressed. Evaluation (judgment) of this phase includes judging about the affairs, information and even methods of dealing with the issues. The evaluation is result of the recognition. At this point, learner inevitably, make the decision. In other words, judgment is judging about the value of matters and subjects for specific purposes. (Mousavi, 2011).

But one of the most important lesson materials in any language learning is language rules (syntax) that fluency in it can lead to progress in other lingual skills. For this purpose, studying different teaching methods for scientific upgrade of the students and the possibility of efficiency in processing their scientific information indeed will make significant progress in their position in higher education and the labor market. since in teaching Arabic language of country, for many reasons, including : low content of textbooks in Arabic language , lack of access learners to language audio tools or appropriate educational networks, failure to allocate sufficient time for specialized lessons in educational planning, lack of awareness of teachers from the importance of modern teaching methods and their impact of it on learning overshadowed Arabic language and literature in the country and created relative weakness in learning the language (Heidari and Hakim , 2015).

It can be said with regard to mentioned issues that in this study, researchers sought to determine the effect amount of cooperative learning in comparing to individual learning (remembering information, understanding, analysis and judgment power. so, this the present research project tries to study academic achievement through collaborative learning with individual learning of syntax lesson of the Arabic literature students at the University of Zabol.

### 3. Research Objectives and hypotheses

The overall goal: of the study is comparison of the effect of cooperative learning with individual learning at lesson syntax clause of the Arabic literature students at the University of Zabol.

The research Hypothesis

1. the cooperative learning than individual learning has more effect on remembering and remembering scientific information of lesson syntax clause of the Arabic literature students at the University of Zabol.

2. the cooperative learning than individual learning has more effect on perception and understanding amount of learned matters of lesson syntax clause of the Arabic literature students at the University of Zabol.

3. the cooperative learning than individual learning has more effect on the strength amount of of scientific data analysis of lesson syntax clause of the Arabic literature students at the University of Zabol.

4. the cooperative learning than individual learning has more effect on the strength of of scientific judgment of lesson syntax clause of the Arabic literature students at the University of Zabol.

5. the cooperative learning than individual learning has more effect on the learning amount of lesson syntax clause of the Arabic literature students at the University of Zabol.

#### 4. The research History

The following investigative records is brought briefly from two aspects of education and the use of cooperative and individual learning and comparison of two variables of the newest available resources in terms of researching purpose and assumptions. Spherion Azar (2016) studied the effect of Jigsaw classroom to meet the psychological needs of students (need for autonomy, competence and relatedness) that the study findings showed that Jigsaw method has a positive effect on the need for autonomy and competence and communication. Overall, the study findings protected from Self-determination theory and showed that the self-determination protective environments such as teaching Jigsaw method has positive effect on basic psychological needs are met.

Safar Ali Zadeh and adyb (2015) in a conducted study analysis with aim of examining the effect of cooperative learning in interaction with the learning styles (field dependent and field independence) on mathematics academic achievement of first grade female students in Urmia city showed that academic achievement in the experimental group than the control group was significantly higher. The participatory method had a positive effect on on mathematics academic achievement scores with regard to the learning styles, also in conditions that subjects learning style is dependent to field, the participatory method had more effect on the academic achievement amount of subjects.

Hashemi et al. (2015) meanwhile emphasizing on participatory methods stated that including active attended methods of education experts is participatory learning. they with aim of examining the effectiveness of cooperative learning of Jigsaw kind on the self-regulation and academic motivation of primary school children showed that the cooperative learning of Jigsaw increase significantly self-regulation and academic motivation in students and has a positive effect on the development component of these two variables in the students. Overall, study findings showed that the cooperative learning method of Jigsaw compared to traditional methods of teaching is more effective in the development of self-regulation skills and increase students' academic motivation.

Mohammadi et al. (2015) in conducted study the effectiveness of education with cooperative learning method and individual conceptual map on the motivation and academic achievement of students with quasi-experimental method with pre-test and post-test design of control group showed that teaching with cooperative learning method and individual conceptual map is effective on improving the motivation and academic achievement of students. The application of research findings for teachers is that the role of motivational factors of education through collaborative learning and education with individual conceptual map method should be put under consideration in order to increase motivation and academic achievement.

Mesrabadi and Fazy (2015) in a study with combination aim of conducted studies in field of the effectiveness of cooperative learning methods had positive effect on special children's education yields. Ahmadi et al. (2015) in study the effect of

cooperative learning on student composition achievement and comparing it with the traditional method in second grade of junior high school in Saveh city, showed that cooperative learning method than the traditional method leads to error reduction (improvement) in the composition of students. Progress composition of male and female students in cooperative learning method was the same.

Khadive, (2009) studied the comparison of participatory teaching method and traditional teaching methods in the development of sciences lesson and the creativity amount of the third grade middle school students and the results have shown that the quality of learning is more favorable in ways that are along with student more activities and their cooperation with each other. In these methods on how to learn and skills of how learning is emphasized more than our facts and knowledge transfer. And the learner achieves a set of skills and attitudes and knowledge through engaging in various learning activities and experiences that he was contributed to the formation and production of them.

Tajrobeh Kar, (2001) conducted a study as "the Impact of individual and collaborative strengthen in the collaborative learning on academic achievement in English language lesson of third grade female students in Kerman region 1 of education," that educational progress of students who were involved with cooperative learning method to learning, was more than the students who were involved with individual learning method to learning, in the individual groups, the progress of students who received bonuses was more than students who didn't receive bonuses in cooperative groups, groups that are engaged in collaborative learning and received reward individually and cooperatively was better than cooperative learning group who acted without reward. No significant difference was seen between the two collaborative groups with individual reward and collaborative groups with cooperative reward.

Canaan, (2000) studied the impact of participatory teaching methods compared with traditional teaching (lectures) on the academic achievement of first high school female and male students in Rasht city that the results showed that the participatory learning more than the traditional learning leads to increase student academic achievement. Also, the participatory learning has the same effect on the academic achievement of male and female students. In addition to some poor ethnic students the benefit equally from cooperative learning. Johnson et al. (1981) analyzed in an overview 122 conducted studies in regarding to the effect of cooperative, solitary, competitive learning on academic progress. In cooperative learning, in this case that students learned in different groups collaboratively. And in collaborative learning along with competition between groups, means students in different groups paid learning collaboratively. But, the groups compete in reaching goal and receiving reward together. And competitive learning so that students learn individually and competed together to reach the goal and receiving reward. And in individual learning, those without competing with each other learn individually to achieve a certain goal and receiving reward.

#### 5. Methodology

The semi-experimental study method with pretest and posttest design with the control group has been used in this study. In this case that collaborative and individual learning methods were applied as independent variables so that their impact is determined on the amount of remembering, understanding, analysis and practical judgment of the students as the dependent variable. Two Arabic grammar classrooms was used to do this study that number of participants to 50 semester coordinate students were selected with participatory teaching and learning with group partnership and other education by the same lecturer and professor that they participated in one of the specialized classes of the syntax lesson at bachelor course of Arabic literature at the University of Zabol in the 96-95 school year and were studying but in individually learning, the people were

selected with available sampling and simple random method as the studied sample. At the end of the period through doing a test of exam with 20 questions such as routine tests, different syntactic knowledge levels were measured. Then, the pre-test results were collected and were analyzed by statistical tests such as t test for independent groups.

## 6. The data analysis

The analysis of findings in the descriptive statistics section represents that after applying instruction at the level of learning score in syntax lesson of the Arabic literature students at the University of Zabol, a progress was obtained under both

Table 1: independent t tests the first hypothesis before training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	0.04	0.12	48	0.905	0.05
Individual	25	0.02				

In the table (1) independent t test results before training between participation groups and individual groups in the "remembering and recalling" score have been brought. Based on the results in the table, before didactic course was applied on the students of cooperative group and the average score of remembering and reminding in the individual group and in the cooperative group was obtained respectively 0.02 and 0.04 and the amount of obtained t ( $t=0.12$ ) in degrees of freedom 48 and confidence

educational practices which shows the effectiveness of teaching both ways but the score level in the collaborative group was higher from individual groups.

### 6.1 The first hypothesis

The cooperative learning than individual learning has more effect on remembering and remembering scientific information at lesson syntax clause of the Arabic literature students at the University of Zabol.

#### A. pre-trainin

level 95%, is smaller from the value t of table ( $t=2.00$ ). So, there is no significant difference between the two individual and participation groups in the "remembering and recalling score" pre- didactic course in the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### B. post -training

Table 2: independent t test in the first hypothesis after training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	3.76	0.27	48	0.788	0.05
Individual	25	3.69				

In the table (2) independent t test results after training between participation groups and individual groups in the "remembering and recalling" score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. based on the results in the table, after didactic course was applied on the students of cooperative group and the average score of knowledge in the individual group and in the cooperative group was obtained respectively 3.69 and 3.76 and the amount of obtained t ( $t=0.27$ ) in degrees of freedom 48 and confidence level 95%, is smaller from the t value of table ( $t=2.00$ ). So, there is no significant difference between the two and individual and participation groups in the "remembering and recalling score "after didactic course. As a result, the research hypothesis is rejected and cooperative learning than individual learning at lesson syntax clause of the Arabic literature students

at the University of Zabol hasn't more effect on remembering and remembering scientific information at lesson syntax clause of the Arabic literature students at the University of Zabol. Ofcourse, with comparing two groups before and after training were observed that both types of training are effective ways because it leads to increase remembering and reminding levels.

### 6.2 The second hypothesis

The cooperative learning than individual learning has more effect on understanding of the learned matters at lesson syntax clause of the Arabic literature students at the University of Zabol.

#### A. Pre-training

Table 3: independent t test in the second hypothesis before training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	0.06	- 0.23	48	0.819	0.05
Individual	25	0.09				

In the table (3) independent t test results before training between participation groups and individual groups in the " perception and understanding " score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. based on the results in the table, before didactic course was applied on the students of cooperative group and the average score of perception and understanding in the individual group and in the cooperative group was obtained respectively 0.09 and 0.06 and the amount of obtained t ( $t= - 0.23$ ) in degrees of

freedom 48 and confidence level 95%, is smaller from the value t of table ( $t=2.00$ ). So, there is no significant difference between the two individual and participation groups in the "perception and understanding "score "before didactic course in the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### B. post -training

Table 4: independent t test in the second hypothesis after training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	3.45	2.52	48	0.015	0.05
Individual	25	3.02				

In the table (4) independent t test results after training between participation groups and individual groups in the "perception and understanding " score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, after didactic course was applied on the students of cooperative group and the average score of perception and understanding in the individual group and in the cooperative group was obtained respectively 3.45 and 3.02 and the amount of obtained t ( $t=2.52$ ) in degrees of freedom 48 and confidence level 95%, is larger from the t value of table ( $t=2.00$ ). So, there is significant difference between the two and individual and participation groups in the "perception and understanding score "after didactic course. As a result, the research hypothesis is rejected. According to obtained the

average related to cooperative learning is more than individual learning, it can be said that the cooperative learning than individual learning has more effect on understanding of the learned matters at lesson syntax clause of the Arabic literature students at the University of Zabol.

### 6.3 The third hypothesis

The cooperative learning than individual learning has more effect on the amount of ability to analyze scientific information of the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### A. Pre-training

Table 5: independent t test in the third hypothesis before training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	0.8	- 0.74	48	0.463	0.05
Individual	25	0.9				

In the table (5) independent t test results before training between participation groups and individual groups in the " analysis " score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, before didactic course was applied on the students of cooperative group and the average score of analysis in the individual group and in the cooperative group was obtained respectively 0.9 and 0.8 and the amount of obtained t

( $t= - 0.74$ ) in degrees of freedom 48 and confidence level 95%, is smaller from the value t of table ( $t=2.00$ ). So, there is no significant difference between the two individual and participation groups in the "analysis ability score "before didactic course in the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### B. post -training

Table 6: independent t test in the third hypothesis after training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	4.43	6.92	48	0.000	0.05
Individual	25	3.2				

In the table (6) independent t test results after training between participation groups and individual groups in the " analysis ability "score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, after didactic course was applied on the students of cooperative group and the average score of analysis ability in the individual group and in the cooperative group was obtained respectively 3.2 and 4.43 and the amount of obtained t ( $t=6.92$ ) in degrees of freedom 48 and confidence level 95%, is larger from the value t of table ( $t=2.00$ ). So, there is significant difference between the two and individual and participation groups in the "analysis ability score "after didactic course. As a result, the research hypothesis is rejected. According to obtained

the average related to cooperative learning is more than individual learning, it can be said that the cooperative learning than individual learning has more effect on the amount of analysis ability of scientific information at lesson syntax clause of the Arabic literature students at the University of Zabol.

### 6.4 The fourth hypothesis

The cooperative learning than individual learning has more effect on the ability amount of scientific judgment of the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### Pre-training

Table 7: independent t test in the fourth hypothesis before training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	0.07	0.17	48	0.866	0.05
Individual	25	0.04				

In the table (7) independent t test results before training between participation groups and individual groups in the " scientific judgment "score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, before didactic course was applied on the students of cooperative group and the average score of scientific judgment ability in the individual group and in the cooperative group was obtained respectively 0.04 and 0.07

and the amount of obtained t ( $t= 0.17$ ) in degrees of freedom 48 and confidence level 95%, is smaller from the value t of table ( $t=2.00$ ). So, there is no significant difference between the two individual and participation groups in the "scientific judgment ability score "before didactic course in the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### B. post -training

Table 8: independent t test in the fourth hypothesis after training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	2.81	1.62	48	0.112	0.05
Individual	25	2.44				

In the table (8) independent t test results after training between participation groups and individual groups in the " scientific judgment ability "score of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, after didactic course was applied on the students of cooperative group and the average score of scientific judgment in the individual group and in the cooperative group was obtained respectively 2.44 and 2.81 and the amount of obtained t (t=1.62) in degrees of freedom 48 and confidence level 95%, is smaller from the t value of table (t=2.00). So, there is no significant difference between the two and individual and participation groups in the "scientific judgment score "after didactic course. As a result, the research

hypothesis is rejected and cooperative learning than individual learning at lesson syntax clause of the Arabic literature students at the University of Zabol hasn't more effect on amount of scientific judgment ability at lesson syntax clause of the Arabic literature students at the University of Zabol.

### 6.5 The fifth hypothesis

The cooperative learning than individual learning has more effect on learning amount of the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### A. Pre-training

Table 9: independent t test in the fifth hypothesis before training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	0.26	0.569	48	0.572	0.05
Individual	25	0.21				

In the table (9) independent t test results before participating between participation groups and individual groups in the " learning amount "of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, before didactic course was applied on the students of cooperative group and the average score of the learning amount in the individual group and in the cooperative group was obtained respectively 0.21 and 0.26 and

the amount of obtained t (t= 0.569) in degrees of freedom 48 and confidence level 95%, is smaller from the t value of table (t=2.00). So, there is no significant difference between the two individual and participation groups in the "learning amount "before didactic course in the lesson syntax clause of the Arabic literature students at the University of Zabol.

#### B. post -training

Table 10: independent t test in the fifth hypothesis after training

The group	The number	The mean	t	The degree of freedom	The probability amount	The test error
participatory	25	14.45	2.46	48	0.018	0.05
Individual	25	12.35				

In the table (10) independent t test results after participating between participation groups and individual groups in the " learning amount "of the lesson syntax clause of the Arabic literature students at the University of Zabol have been brought. Based on the results in the table, after didactic course was applied on the students of cooperative group and the average score of the learning amount in the individual group and in the cooperative group was obtained respectively 12.35 and 14.45 and the amount of obtained t (t=2.46) in degrees of freedom 48 and confidence level 95%, is larger from the t value of table (t=2.00). So, there is significant difference between the two individual and participation groups in the "learning amount "after didactic course. As a result, the research hypothesis is accepted and according to obtained average related to cooperative learning is more than individual learning. It can be said that the cooperative learning than individual learning has more effect on the learning amount of leaned matters at lesson syntax clause of the Arabic literature students at the University of Zabol.

## 7. Discussion

In this section, the results of this study are presented and are analyzed, the results of this research are:

1. The first hypothesis: according to the first hypothesis, there is no significant difference between the remembering and recalling amount of scientific information in the participation learning method than individual learning method in the lesson syntax clause of the Arabic literature students at the University of Zabol. This result hasn't inconsistent with the findings of the Taliby research findings of Talibly in 2005 and Mobini in 1998. The results of researches of these researchers have shown that the subjects of participant group compared to two other groups showed a significant increase in recalling in the lesson syntax clause of the Arabic literature students at the University of Zabol. This result with studies results of Slavin (1990) and

Stanley and Camp Bell research (1966) approve the findings of this hypothesis. These researchers investigated application effect of cooperative learning strategies versus the traditional method of teaching in the Geological Sciences lesson of high school students with emphasis on knowledge, understanding and application of cognitive domain levels in conducted study on 770 ninth graders. the results showed that the cooperative learning in the low levels of cognitive domain such as knowledge and understanding, and perception, hasn't superiority than traditional method but in achieving high levels of this field, it is more effective than traditional methods.

2. According to the second hypothesis, the cooperative learning than individual learning has more effect on the perception and understanding amount of the learned matters at lesson syntax clause of the Arabic literature students at the University of Zabol. The result of this hypothesis has consistent with the researches results of these researchers, such as Robert Slavin 1990, Astosen 1995, Hosseini 2010, and Taliby 2005 and hasn't consistent with the study results of Stanley and Camp Bell in 1966. As it is noted above, these researchers denied cooperative learning excellence in knowledge and understanding and perception levels.

3. According to the third hypothesis, the cooperative learning than individual learning has more effect on the analysis ability of scientific information of the lesson syntax clause of the Arabic literature students at the University of Zabol. the findings of this hypothesis has consistent with the researches results of Johnson 1981, Seirafi 1996, the researches results of these researchers imply on that when students in all three groups (high, medium, low) work together, reach a higher level of reasoning about the course objectives and learning strategies than their counterpart on teaching competitive methods.

4. According to the fourth hypothesis, there is a significant difference between the cooperative learning methods than

individual learning at the judgment levels of the lesson syntax clause of the Arabic literature students at the University of Zabol. This result has consistent with researches results of Mobini 1999, Pakize, 1998, Seirafi 1997 and hasn't consistent with researches results of Stanley and Camp Paul 1966, the researchers in a study that they conducted on 770 ninth grade students, they found that collaborative learning in low levels of cognitive domain is not superior to individual method but in achieving high levels of this area such judgment is more effective than individual method. Researcher in his researches didn't face with studies that directly examined the effect of cooperative learning on the judgment level. The finding of this study couldn't find significant difference between the cooperative- individual learning amount at the judgment and knowledge levels of the lesson syntax clause of the Arabic literature students at the University of Zabol. Probably because the level of knowledge is related to information recall and recognition and in entire memory, participation cannot influence more on raising this kind of information and improving memory. It should be said about judgment levels that given that, this level constitutes the highest level of cognitive domain and the time is required to reach this level and it isn't possible in limited time and on the other hand, because Mike intended test is considered as limitation and it was obtained in Nyjeh, it wasn't been effect less.

5. According to the first hypothesis, the cooperative learning method compared with individual learning method leads to students' learning more. This result has consistent with researches results of Slavin, 1990, 1991, 1992, 1995 Johnson et al. 1982, 1989, 1992, Byrod, 1994, Akbyvkola 1985, 1990 Kennedy in 1982, Camp Bell and Stanley, 1966, Lazaro Vetyz and Hertzlazar Do tyz 1995, Ston 1995, Balaie et al., ..., Hosseini 2010, Khadive 2009, Keramaty 2006, Seirafi, 1996, Aoubi 1999, Canaani 2000, Mini 1998 Safar Alizade and adyb, 2015, Mohammadi et al. 2015, Mesrabadi and Fayzi, 2015, Ahmadi et al. 2015, Ashouri et al. 2015.

According to the results of research based on the effectiveness of cooperative learning on some educational, emotional, behavioral aspects, perhaps it can be said that the collaborative learning excellence password are the following factors: forming groups, encouraging students to cooperate, social skills training, the use of group goals, individual responsibility and collective rewards. With regard to the proposed issues about the effects of different methods of cooperative learning on different aspects of behavior, emotions, attitudes and students academic achievement and considering this fact that many students try greatly to understand and learn their lessons, but they don't benefit efficiently from their activities, failure learning and competitive system of schools, leads to their frustration and anxiety and in the result, academic downfall matters at lesson syntax clause of the students, therefore, we must seek new methods in education. the cooperative learning method is one of the ways in which, first teacher gives comments on the goals, skills, patterns and new concepts and after it, the students work together in learning groups of 4 to 5 people on determined assignments for them. So, the members of the group evaluated each other to ensure the success of each group member in the individual evaluation. Then amount of learning the skills and training matters and issues and assignments each student individually is tested by the teacher. After summing up scores of members of the group, the group that received higher ratings will be encouraged. In this way, the opportunity is established so that students communicated with each other, and are encouraged to work together to achieve a common goal. As various studies have shown, participation led to accept more attention and trust between members of the group means that the group members in the cooperative position than competitive position give more value to each other.

## 8. Conclusion

1. According to surveys taken on the first hypothesis recommended so that they classified students in higher education

into regular bands, and encouraged them to cooperate, necessary training in social skills, and the use of group goals, individual responsibility should be presented to students and useful rewards are considered to participate more students in group activities.

2. according to surveys taken on the second hypothesis, it is suggested that while teaching philosophy and cooperative learning theory and practices applying them to the teachers, training spaces is created so that the students can learn matters deeply and exactly in small groups. The intelligence of the students is paid attention seriously. And applied different tests of intelligence among students and students are classified according to the level of intelligence and learning and they fostered students with principal and logical actions so that they increase the amount of scientific information reminding and remembering in them.

3. According to surveys taken on the third hypothesis, it is proposed that cooperative learning method is used at all levels of education, even in the case of all lessons. as well as college textbook authors is suggested that according to determined goals and monitoring their cognitive levels and the impact of participatory or individual methods on each of these levels proper methods of learning in lessons guide books were recommending.

4. According to surveys taken on the fourth hypothesis, it is proposed that school officials mean teachers and managers and training teachers tried to promote the culture of participation among students and tried to provide space and context that students are more motivated to lead their group activities because encouraging students to solve problems with the help of classmates leads to increase the power of analysis in students.

5. According to surveys taken on the fifth hypothesis, it is proposed that the teachers use new practices and ways to increase the level of analysis and recognition and judgment power in the students. because individual and team or participation activities alone does not recognition and judgment ability on students, so, teachers and school authorities should try to raise analysis power and their cognitive level than the issues surrounding and educational and scientific issues.

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## EXAMINATION OF THE INNER-QUALITY OF CURRICULUM BASED ON ASSESSMENT MODEL OF "AKKER"

<sup>a</sup>FATEMEH VOJDANI, <sup>b</sup>MOHAMMAD TAGHI IMANI

<sup>a</sup>Assistant Professor of Islamic Azad University Branch of Rudehen

<sup>b</sup>Assistant Professor of Islamic Azad University Branch of Rudehen

Email:<sup>a</sup>fatem.vojdaniteh@gmail.com,<sup>b</sup>mohamad\_taghi\_1986@gmail.com

**Abstract.** The study population was consisted of all students and graduates and to determine the sample size, 100 students were selected by using Morgan table. The results were analyzed by using descriptive statistics and inferential statistical methods: one-sample t test. The results from questionnaires indicated that based on the ten Akker elements assessment model (logic and reason, purpose, content, learning activities, teaching methods, materials and resources, grouping, location, time, evaluation) respectively the highest level of utility was related to courses of (Methodology 1, statistics 1, philosophy of education, computer applications, computer applications, statistical methods 1, Statistical Methods 1 and 2, Statistical Methods 2, Statistical Methods 1, evaluation methods).

**Key words:** higher education, curriculum, assessment models, quality

### 1. Introduction

In the twenty-first century universities and higher education institutions continue to be one of the main forms of investment in human resources in different societies have a special place, and the importance. Today, along with the rapid development of education and training has become increasingly important topic of research in the field of education, the need for educational evaluation and revision of curricula is important (khandaghi et al. 2012) Educational evaluation of educational systems usually arises in relation to the quality of the assessments and that is to measure the quality of a system. But the question that arises in this context is; what is the role of assessment in improving the quality of educational systems?

The concept of improvement of the quality is improvement in various fields, including design methods and operations, reduce waste, employee satisfaction, increased profitability and consumer satisfaction, etc. (Fathi Vajargah et al. 2014). Stakeholders and decision makers in relation to everything in their community including higher education and specific inputs such as curricula should constantly examine and evaluate them, insufficient attention to the ongoing renewal of the curriculum is one of the main reasons for failure of quality; therefore, to create a platform from the stakeholders to assess and investigate the programs, and turning them into more appropriate curricula and relevant to the needs are of the major tasks that can be used to help sustain the position of universities in the world as the original base of knowledge, research and development (Burk et al. 2014). One of the most important and most basic activities in the planning cycle is finding the value of previous activities in the form of evaluation, in terms of education can also consider assessment the most basic step in conjunction with the evaluation of educational activities in order to improve the quality of education, performing educational evaluation process at different intervals, in order to measure the effectiveness and program quality is of utmost importance (Bazargan, 1997).

Curriculum evaluation process is used in judgment of decisions about appropriate curriculum (Bartlett and Burton, 2012). In this study evaluation and assessment means the steps that teachers do during the semester to assess students' ability. Some scholars believe that the target of evaluation is to recognize "results of the curriculum". According to this department of Educational Evaluation should notify the appropriate authorities of the affected curriculum. Through comparative study program or comparison of a program with other programs, it can be concluded that how is a program (Kelly, 2009). Akker while the identification of these elements raises questions to clear the status of these elements in the quality of the curriculum review process (Table 1).

Table 1: ten elements of the curriculum from the perspective of "Akker"

Directing Questions	Elements of the curriculum
Why should learners learn?	Rationale
What are learners' goals to achieve?	Goals and objectives
What do Learners learn?	Content
How do learners learn?	Learning activities
How teachers facilitate teaching and learning process?	The role of teacher
What does help learners in this process?	Materials and Resources
Who would they engage to learn?	Grouping
When and how long do they need to learn?	Time
Where do they learn?	Location
How much progress has they been made in learning?	Assessment and evaluation

Curriculums are of the main elements or sub-systems of higher education and have undeniably crucial role in achieving the goals and missions of higher education in terms of quantity and quality (Wang, 1994). A feature of the curriculum in universities and higher education institutions is that first of all judgments and decisions in relation to the existing curriculum, is to identify systematically impact of the flow of technological, economic, political, social and cultural on higher education and its elements, and be aware of the type and extent of impacts, issues, and challenges arising from them in each respective components. In the past decade, the concept of quality in higher education has been emphasized with more attention and its assessment has been proposed in the university systems (Asadpour, 2008). In other words educational evaluation in the educational system usually arises in relation to quality and in fact, the assessment is to measure the quality of a system. Many scientists such as Robertson believe that, paying too much attention to concept of

qualification in education has led to a crisis called quality and educational systems should strive to improve the quality of their inputs, processes and outputs. One of the ways to improve the quality of educational is assessment. Educational and research quality are of concerns that the university always strive to achieve it. Considerable efforts has been carried out on continuous quality improvement in higher education and achieve academic goals in the last decade in many countries (Asadpour, 2008). In today's world, the necessity of quality of education and its efficiency is very important. Nowadays, continuity and dynamics commensurate with social changes in quality of education has become an important issue for organizations involved in education and curriculum specialists so that they can improve their performance and curriculum, and they should consider the quality of education in the process (New Ton, 2007).

For internal quality assessment of curriculums there are significant challenges which among them determining the elements of the curriculum as well as creating balance and cohesion among them is of the most importance. For determinations of curriculum elements different views has been offered. However, perhaps the most famous withdraw of the proposed elements of the curriculum is, Francis Klein pattern classification study of the pattern of school education (SOS) which has done in 9 elements of goals, instructional materials, content, learning activities, learning strategies, grouping, time, place and evaluation of proposed curriculum. According to the proposed model, "Akker" in terms of the elements of the curriculum is focused on 10 elements other than the element of "Rationale and reason" of curriculum, other elements are in common with Klein model (Pazargadi, 2004)

Curriculum evaluation is presented in different patterns among the models, Akker model elements are more inclusive and considered all of the factors (Cai, 2010). In this study, we investigated this model and described the elements of it. This study tries to answer this fundamental question "The inner-quality of the curriculum of Educational research field in master's degree in Islamic Azad University Branch of Rudehen by considering how ten elements of Akker are. In order to achieve the research objectives in this regard, the question is raised:

How is the internal quality of academic curriculum of educational research field of Islamic Azad University Branch of Rudehen by considering ten elements of Akker?

## 2. A review of the literature

Arrefi (2005) in a research titled ((Evaluation of field of Educational Sciences curriculum with educational management orientation and providing ways to improve it)) considered the current situation and optimal curriculum on this field. Results represents that the status quo of curricula in all three undergraduate, master's, and Ph.D. do not meet the conditions and the needs but the revision of the undergraduate curriculum is more demanding.

Hatami et al. (2009) in his study entitled "the study of effect of internal quality assessment of the quality of higher education from the perspective of faculty members of Shahid Beheshti University" achieved these results, internal evaluation affects all the variables also by the independent t test turned out the term of membership in the group and gender doesn't affect variables.

Klein (1990) in his research entitled "curriculum in higher education according to individual needs" with a case study has provided a model for Curriculum Development in Higher Education in certain circumstances, due to the immediate needs. In this review he has concluded that the lesson planner as researcher have to pay up and has particular skills in this domains. Also the relationship between curriculum planners and researchers in an organization and time management are requirements of a successful plan.

Andre (1998) in his research entitled "Curriculum for the year two thousand: a case study of vocational schools curriculum" Several factors such as organizational culture, values, relationships, and policies. . . Studied by using ethnographic methods and ultimately concluded that the important factors in planning are, active participation of faculty and all relevant groups, including students, managers and employers, as well as having management support and systematic approach in planning. A research by Goreck Baybars and kocakulah has been conducted (2009) entitled "The assessment of basic physics curriculum not on teachers opinions" that according to the results of this research teacher thought the activities included in the curriculum are suitable, but they cannot be applicable in a classroom setting. In addition, the findings of this study indicated that the activities were not compatible with the environment and environmental supplies, don't support activities

and, when they were necessary, weren't sufficient to teach a unit or teachers doesn't share common comments on them. So the role of teachers in achieving success in the implementation of the curriculum should not be ignored. Kirkgoz (2009) in a study entitled "development challenges and maintain innovation in the curriculum in higher education in Turkey" is concluded that static and dynamic curriculum reform process can be effective if they are founded on the needs of teachers and students as well as multi-dimensional analysis of the needs of the community.

## 3. Objectives and Methodology

This study is a cross-sectional survey that was done in 2015. In this study a researcher- made questionnaire was used to examine the quality of the curriculum. The objectives of this study are as follows:

- investigation of the quality of logic and reason elements on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of goal and objective element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of content element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of learning activities elements on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of teaching methods element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of material and facilities element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of grouping element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of location element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of time element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen
- investigation of the quality of evaluation element on curriculum of Postgraduate Course of Educational Research field Faculty of Education of Islamic Azad University of Rudehen

The questionnaire consisted of two parts of demographic characteristics and questions of the questionnaire. For measuring the validity of the content validity and reliability and the final assessment, the Cronbach's alpha was used, the using Cronbach's alpha reliability of the questionnaires was 85%. The study population consisted of all students and graduates of Islamic Azad University Branch of Rudehen that in this study to characterize the sample of 100 students was selected by using Morgan table. To analyze the data we used software SPSS, also by descriptive statistics (mean, tables and frequency) and inferential statistics (one-sample t test) of research data were analyzed.

### 3.1 Validity and reliability

To determine the validity, several copies of the questionnaire were put out among teachers of curriculum and based on their suggestions, it was corrected. To determine reliability, before the final run of questionnaire, "pilot implementation" of questionnaire was conducted. In the pilot implementation the questionnaire was filled out by 35 subjects. In this study, to achieve the reliability, Cronbach's alpha coefficient has been used which the Cronbach's alpha coefficient was calculated by using the software spss as 85%. Since the alpha is in the interval of (1-0) the obtained value in terms of reliability is at a high level (Moen, 1990).

#### 4. Research Findings

Statistical methods used to analyze the information in question were developed based on the intended goals, including descriptive and inferential statistics. In descriptive statistics the frequency, percentage and density percentage were used to summarize information and the mean and standard deviation in statistics were used to summarize questionnaire data that was used to test the research questions, which was included one-sample T test, chi-square test and Friedman test.

##### 4.1 Quality of logic and reason elements

Table 2 indicates the t test results on the Rationale element in each of the courses. As can be seen, the value of t is calculated for all courses (except the philosophy of education and educational psychology) t is larger than a critical value. Therefore the situation of logic and reason element in the curriculum of graduate studies of Educational research field (except for the two mentioned course), in the rest of the courses is higher than average (3). And we can conclude that from the perspective of graduate students of educational research of Islamic Azad University Branch of Rudehen, the quality of logic and reason element of all courses (except philosophy of education and educational psychology) has been assessed somewhat properly with respect to the ten elements of the curriculum of Akker.

Table 2: one- sample t-test to examine the internal quality of the curriculum in terms of Rationale of logic and reason

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
Upper line	Lower line						
1.2400	.8600	1.05000	.000	99	10.967	Research Methodology 1	Rationale and reason
1.0222	.6578	.84000	.000	99	9.150	Research Methodology 2	
.7314	.3686	.55000	.000	99	6.016	Statistics 1	
1.0632	.7368	.90000	.000	99	10.940	Statistics 2	
.1974	-.1974	.00210	.191	99	.023	Philosophy of Education	
.2847	-.1247	.08000	.440	99	.775	Educational Psychology	
.8250	.4950	.66000	.000	99	7.938	Evaluation methods	
.7790	.4610	.62000	.000	99	7.738	Teaching methods	
.6521	.2479	.45000	.000	99	4.417	Computer Applications	

##### 4.2 the quality of objective element

Table 3 indicates the t-test results in the context of the target element in each of the courses. As it can be seen, the value of t calculated for all courses is greater than the critical value. The status of the target element in the curriculum of graduate studies

is higher than average (3). Therefore it can be concluded that from the perspective of Education graduate students' of educational research of Islamic Azad University Branch of Rudehen, the quality of target element of all courses according to the ten elements of curriculum of Akker has been assessed somewhat appropriately.

Table 3: one sample t-tests to examine the quality of the curriculum in terms of target

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
.5828	.2172	.40000	.000	99	4.342	Research Methodology 1	The objective element
.4154	.0846	.25000	.003	99	3.000	Research Methodology 2	
1.0954	.7446	.92000	.000	99	10.408	Statistics 1	
1.0542	.7258	.89000	.000	99	10.755	Statistics 2	
.7163	.3037	.51000	.000	99	4.906	Philosophy of Education	
.7640	.3560	.56000	.000	99	5.447	Educational Psychology	
.9482	.5518	.75000	.000	99	7.509	Evaluation methods	
.9094	.5306	.72000	.000	99	7.545	Teaching methods	
.7283	.3317	.53000	.000	99	5.302	Computer Applications	

##### 4.3 Quality of content element

Table 4 indicates t test results in the field of content element in each of the curriculum courses. As can be seen, the value of t calculated for all courses is greater than the critical t value. Therefore the state of content element at graduate students'

educational research curriculum is higher than average (3). Thus, we can conclude that from the perspective of graduate students of educational research of Islamic Azad University Branch of Rudehen, quality of element content of all courses according to the ten elements of the Akker curriculum is assessed somewhat appropriately.

Table 4: one sample t-tests to examine the quality of the curriculum in terms of content

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.9745	0.5855	0.78000	0.000	99	7.956	Research Methodology 1	Content element
0.9043	0.4957	0.70000	0.000	99	6.797	Research Methodology 2	
1.2071	0.8529	1.03000	0.000	99	11.537	Statistics 1	
1.2067	0.8733	1.04000	0.000	99	12.382	Statistics 2	
1.4270	1.0730	1.25000	0.000	99	14.015	Philosophy of Education	
1.3764	1.0036	1.19000	0.000	99	12.666	Educational	

						Psychology	
0.4546	0.0654	0.26000	0.009	99	2.651	Evaluation methods	
0.4336	0.0464	.24000	0.016	99	2.460	Teaching methods	
0.6014	0.1986	0.40000	0.000	99	3.941	Computer Applications	

#### 4.4 Quality of learning activities Element

Table 5 indicates t test results in the context of learning activities in each of the courses. As can be seen, the value of t calculated for all courses (except evaluation methods and teaching methods) is larger than a critical t value. Therefore the status of learning activities element of across the curriculum for

postgraduate educational research student's curriculum (except in two mentioned lessons) is higher than average (3). Thus, we can conclude that from the perspective of educational research of graduate students of Islamic Azad University Branch of Rudehen, quality of learning activities in all courses (except evaluation and teaching methods) with respect to the ten elements of Akker curriculum is assessed somewhat appropriate.

Table 5 one-sample t-tests to examine the inner-quality of the curriculum in terms of learning activities

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Element	Element
upper line	Lower line						
0.9970	0.6430	0.82000	0.000	99	9.193	Research Methodology 1	Learning activities element
0.9806	0.6194	0.80000	0.000	99	8.790	Research Methodology 2	
1.1111	0.7689	0.94000	0.000	99	10.899	Statistics 1	
1.1420	0.8180	0.98000	0.000	99	12.006	Statistics 2	
1.2094	0.8506	1.03000	0.000	99	11.393	Philosophy of Education	
1.1379	0.7621	.95000	0.000	99	10.034	Educational Psychology	
0.3389	-0.1189	.11000	0.343	99	0.953	Evaluation methods	
0.3103	-0.1503	0.08000	0.492	99	0.689	Teaching methods	
1.4270	1.0730	1.25000	0.000	99	14.015	Computer Applications	

#### 4.5 Quality of teaching methods element

Table 6 indicates t test results in the field of teaching methods element in each of the courses. As it can be seen, the value of t calculated for all courses (except evaluation methods) is larger than a critical t value. Therefore the state of element of teaching methods in educational research graduate students is (except for

the above mentioned course) higher than average (3). Thus, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rudehen, Faculty of Education, quality of teaching methods element in courses (except evaluation methods) with respect to the ten elements of Akker curriculum is assessed somewhat appropriately.

Table 6 one-sample t-tests to examine the inner-quality of the curriculum in terms of teaching methods

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.6626	0.2174	0.44000	0.000	99	3.921	Research Methodology 1	Teaching methods
0.6064	0.1736	0.39000	0.001	99	3.575	Research Methodology 2	
1.1127	0.7273	0.92000	0.000	99	9.474	Statistics 1	
1.1015	0.7185	0.91000	0.000	99	9.430	Statistics 2	
0.9125	0.5475	0.73000	0.000	99	7.939	Philosophy of Education	
0.8098	0.4502	0.63000	0.000	99	6.952	Educational Psychology	
0.3496	-0.1096	0.12000	0.302	99	1.037	Evaluation methods	
0.3475	-0.1275	0.11000	0.360	99	0.919	Teaching methods	
1.1521	0.7479	0.95000	0.000	99	9.325	Computer Applications	

#### 4.6 Quality of material and resources element

Table 7 indicates t test results on material and resources element in each of the courses. As it can be seen, the value of t calculated for all courses is greater than the critical t value. Therefore the status of materials and resources element in courses of graduate

students of educational research is above the average (3). Thus, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rodehen, Faculty of Education, quality of materials and resources elements according to ten elements of Akker curriculum is assessed somewhat appropriately.

Table 7: one sample t-tests to examine the inner-quality of the curriculum in terms of materials and resources

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
1.0201	0.6799	0.85000	0.000	99	9.916	Research Methodology 1	Materials and resources
1.0017	0.6583	0.83000	0.000	99	9.593	Research Methodology 2	
1.1892	0.8508	1.02000	0.000	99	11.964	Statistics 1	
1.1379	0.8021	0.97000	0.000	99	11.461	Statistics 2	
0.9230	0.5370	0.73000	0.000	99	7.503	Philosophy of Education	
0.8956	0.5244	0.71000	0.000	99	7.592	Educational Psychology	
0.7777	0.3623	0.57000	0.000	99	5.444	Evaluation methods	

0.7659	0.3541	0.56000	0.000	99	5.396	Teaching methods	
1.1910	0.7690	0.98000	0.000	99	9.215	Computer Applications	

**4.7 Quality of grouping element**

Table 8 indicates t test results in the context of grouping element in each of the courses. As it can be seen, the value of t calculated for all courses is greater than the critical t value. Therefore the status of the grouping element in the curriculum of educational

research graduate students is higher than average (3). Thus, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rudehen, Faculty of Education, quality of grouping elements in all courses according to the ten elements of Akker curriculum is assessed somewhat appropriately.

Table 8: one-sample t-tests to examine the inner-quality of the curriculum in terms of grouping

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.7320	0.3080	0.52000	0.000	99	4.868	Research Methodology 1	grouping
0.7020	0.2780	0.49000	0.000	99	4.587	Research Methodology 2	
0.9284	0.5516	0.74000	0.000	99	7.794	Statistics 1	
0.9367	0.5433	0.74000	0.000	99	7.467	Statistics 2	
0.6507	0.2093	0.43000	0.000	99	3.865	Philosophy of Education	
0.7139	0.2861	0.50000	0.000	99	4.639	Educational Psychology	
0.7204	0.3196	0.52000	0.000	99	5.149	Evaluation methods	
0.7204	0.3196	0.52000	0.000	99	5.149	Teaching methods	
0.6498	0.2302	.44000	0.000	99	4.162	Computer Applications	

**4.8 Quality of location element**

Table 9 indicates t test results in each of the courses in the location element. As it can be seen, the value of t calculated for all courses (except evaluation and teaching methods) is larger than a critical t value. Therefore the Location element in the curriculum of the graduate students of educational research

(except for the two mentioned courses) is higher than average (3). Thus, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rudehen, Faculty of Education, quality of location element in all courses (except evaluation and teaching methods) with respect to the ten elements of Akker curriculum is assessed somewhat appropriately.

Table 9: one-sample t-tests to examine the inner-quality of the curriculum in terms of location

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.5024	0.0976	0.30000	0.004	99	2.941	Research Methodology 1	location
0.5212	0.1188	0.32000	0.002	99	3.156	Research Methodology 2	
0.7879	0.3321	0.56000	0.000	99	4.875	Statistics 1	
0.8238	0.3762	0.60000	0.000	99	5.318	Statistics 2	
0.7996	0.3404	0.57000	0.000	99	4.927	Philosophy of Education	
0.7798	0.3202	0.55000	0.000	99	4.750	Educational Psychology	
0.3212	-0.1212	0.10000	0.372	99	0.897	Evaluation methods	
0.3461	-0.1061	0.12000	0.295	99	1.053	Teaching methods	
0.6718	0.2482	0.46000	0.000	99	4.309	Computer Applications	

**4.9 Quality of time element**

Table 10 indicates t test results in the context of the time element in each of the courses. As it can be seen, the value of t calculated for all courses (except for Research Methods 1 and 2) is larger than the critical t value. The time element status in the curriculum for postgraduate educational research students

(except in two mentioned lessons) is higher than average (3). Thus, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rudehen, Faculty of Education, Quality of time element for all courses (except for Research Methods 1 and 2) with respect to the ten elements of Akker curriculum is assessed somewhat appropriately.

Table 10: one-sample t test to examine the inner-quality of the curriculum in terms of time

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.1823	-0.3023	-0.6000	0.624	99	-0.491	Research Methodology 1	time
0.2734	-0.2134	0.03000	0.807	99	0.245	Research Methodology 2	
1.2668	0.9532	1.11000	0.000	99	14.050	Statistics 1	
1.2608	0.9392	1.10000	0.000	99	13.575	Statistics 2	
1.1519	0.8481	1.00000	0.000	99	13.065	Philosophy of Education	
1.0312	0.7088	0.87000	0.000	99	10.711	Educational Psychology	
0.8795	0.5205	0.70000	0.000	99	7.739	Evaluation methods	
0.8625	0.4975	0.68000	0.000	99	7.393	Teaching methods	
0.5560	0.1440	0.35000	0.001	99	3.371	Computer Applications	

#### 4.10 Quality of evaluation element

Table 11 indicates t-test results of the evaluation element in each of the courses. As it can be seen, the value of t calculated for all courses is greater than the critical t value. Thus the evaluation element in the curriculum of the graduate students of educational

research is higher than average (3). Therefore, we can conclude that from the perspective of graduate students of educational research Branch of Islamic Azad University of Rudehen, Faculty of Education, quality of evaluation element of courses according to all ten elements of Akker curriculum is assessed somewhat appropriately.

Table 11: one-sample t-test to examine the inner- quality of the curriculum in terms of evaluation.

95% confidence interval for the difference		Differences between the means	The significance level	Degrees of freedom	the amount of t	Elements	Element
upper line	Lower line						
0.4673	0.0327	0.25000	0.025	99	2.283	Research Methodology 1	evaluation
0.4550	0.0250	0.24000	0.029	99	2.215	Research Methodology 2	
0.9745	0.5855	0.78000	0.000	99	7.956	Statistics 1	
0.9043	0.4957	0.70000	0.000	99	6.797	Statistics 2	
0.6738	0.3062	0.49000	0.000	99	5.288	Philosophy of Education	
0.6035	0.2165	0.41000	0.000	99	4.203	Educational Psychology	
1.4002	1.0998	1.25000	0.000	99	16.510	Evaluation methods	
1.3488	1.0312	1.19000	0.000	99	14.871	Teaching methods	
1.3551	0.9849	1.17000	.000	99	12.545	Computer Applications	

#### 5. Discussion and Conclusion

Evaluation is a Systematic activity in which the criteria is determined for the valuation, to provide information about the status of the subject or phenomenon and by comparing these two (the status quo with pre-designed criteria), is obtained information from the value and usefulness of the subject or phenomenon. In order to find the reason and necessity of evaluation in Higher Education it is said that it causes faculty and students within each institution / program and outside the scientific community be aware of the quality of scientific and educational activities and academic norms and friends of the institution / program with self-evaluation and external evaluation by volunteering with scientific and technical peers, enhance their constantly improvement chances and make more rational use of the feedback on improving their assessment and planning for future actions and to provide a competitive situation out of existing resources. This section includes a summary of research, discussion and conclusions based on statistical analysis of data of research. The present study evaluated the quality of the curriculum of graduate studies at the Faculty of Educational Sciences, Islamic Azad University Branch of Rudehen that in this study, ten questions has been proposed about the evaluation of inner-quality of the curriculum of graduate courses of educational research field.

Research results indicate that students who graduate from the perspective of Educational Research Branch of Islamic Azad University of Rudehen, Faculty of Education, the quality of logic and reason elements of all courses (except philosophy of education and educational psychology) according to the ten elements of Akker curriculum is assessed somehow appropriately. Also from the perspective of the students, the quality of the target element, the element of evaluation, content element and material element, Element of grouping and resources of all courses according to the ten elements of Akker curriculum is assessed somewhat appropriately.

Moreover, the results represented that the quality of learning activities element in all courses (except evaluation and teaching methods), the quality of teaching methods elements of all courses (with the exception of the evaluation methods), quality of the location element in all courses (except evaluation and teaching methods), quality of the time element in all courses (except for Research Methods 1 and 2) with respect to the ten elements of Akker curriculum is assessed somehow appropriately.

The empirical data of present study is conducted on the impact of internal quality assessment scale of the students' curriculum, so if the research was performed on the faculty members, the

results would be more reliable. There is no doubt that many variables impact on the quality of the curriculum of graduate courses of educational research but the difficulty in quantifying some of these variables caused in this study to examine the issue only through ten Akker elements.

According to the statistical results of the study, it is suggested that briefings about the need to change the curriculum, benefits and positive outcomes within the curriculum of colleges and universities to be held at different levels of decision-making. It is also recommended that to give more emphasis on group working in the classroom and teaching methods, student participation, participating in the operations and training environments and practical lessons according to the needs of the organization and the community.

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## EFFECT OF SATIATE MESSAGES ON TREATMENT AIMS IN SOCIAL NETWORK MARKETING CONSIDERING THEORY AND USERS PROFICIENCY IN ROSHTAK ELECTRONIC PRODUCT PAGE IN FACEBOOK (CASE STUDY: ELECTRONIC PRODUCTS OF COMMUNICATION ZONE)

<sup>a\*</sup>HOMA DOROUDI, <sup>b</sup>MEHDI GIVEIE

<sup>a</sup> Assistant professor, Marketing Management Course, Faculty of Social and Humanities, Islamic Azad University, Zanjan Unit

<sup>b</sup> MSc student, Marketing Management Course, Faculty of Social and Humanities, Islamic Azad University, Zanjan Unit

Email: <sup>a</sup>homa.dor.oud@yahoo.com, <sup>b</sup>mehdi.giv.19m@gmail.com

**Abstract.** This study is carried out with point of checking of satiate message effect in social network marketing considering perception and user's proficiency in roshtak electronic product page in Facebook especially on electronic products of communication zone. Using data standard questionnaire of statistical society is collected. In descriptive statistical analysis, SPSS software is used and for assumption testing, structural formulas based on LISREL software is used that outcomes shows logic quality variables, send popularity, attractiveness on beneficial variables and has positive and meaningful prefer. Last but not the least, it is proposed that by sending subjects in sites learning words and accompanied by meaning should be used in order to plunge visitor's taught in advertisement.

**Keywords:** Marketing, social networks, satiate messages, logic quality, sending popularity, sending attractiveness

### 1. Introduction

Social relationships is considered as society main core and is caused activists to simplify their action in society with extension of their relations and reach their aims through this. All members of society are in an attempt to make a relation with others somehow to accelerate their exchanges in different fields (Bianchi and Andrews, 2015).

In addition to society in huge level that is composed of extend exchanges in it, smaller society as "network society" is presented that is a network of person informal relationships (Constantin ides, 2014).

In media era, talking about newfangled does not mean talking about organizations, rather the word is about an organization which is based on regular control of social relationships in time-space intervals. Modern era organizations are unheard and original from many aspects and are not any way continue of the cultures and lifestyles of before modern. Form this point of view, kind of disintegration and historical separation confronts (Rizan and Esfandiary Moghadam, 2015). One of these obvious differences of newfangled universe rather than previous eras of social life is its irregular dynamism and mobility (Abdolvand and Alipour, 2011).

Virtual social networks emanate second life. This situation know under topic like online life, virtual life and electronic life, too. So, virtual social networks can confront people taste, people lifestyle, organizational inclinations and organizational paradigms with special changes (Cheung and Lee, 2010). Today social media are emanate of people in online space, media which people are its axis (user axis) and most of visitor's amount and allocated production content to itself. So it seems that these media become very beneficial and attractive for works and trades. Because these works and trades always was follow gaining attention and addressee's interest (users or customers). This is when marketing knowledge is introduced. By increasing in user numbers and their attending time in social media, these media can turn into stronger tools for marketing that companies make profits for selling their products and in other word for attracting customer and other treating aims in this field. Satiation messages can be caused view change of users and producing reciprocal exchanges between users and organization (Camarero and San José, 2011). One of the notable methods in customer attraction area and guidance of treating aims in media marketing area can messages which transfer from these media. Nowadays social network marketing that use networks and social media

toward sharing content, publishing data, making connections are of the most effective advertisement methods (Dahnil et al. 2014).

With help of communication due to social network marketing, messages can be received and sent simply and fast. Social media with effect of synergy in marketing theories has become to one powerful and efficient tool in this area. So marketing managements of organizations can persuade social network users to publish satiation and advertising messages. So publishing process and sharing data is a vital factor in social network marketing success in treating aims in this area (Chang et al. 2015).

Satiation process is an active effort that cause changes in person's beliefs and proceedings by logical and reasonable speeches.

In satiation process, argument quality and strong arguments will cause receiving appropriate cognitional responses rather than posts. If advertising posts consist of incorrect content, inactive links, irrelevant subjects etc. Addressees may find negative vision to the organization and thereafter organization even lost his customer. Addressees should be aware of accurate subject of post messages to be able to analyze argument quality and find out the profits of it (De Vries et al. 2012). Argument quality trace back to persuasive power of discussion in post content. Send popularity trace back to number of likes and comments and sharing times and responding answers that is in social network page. Send attraction points that how far receiver's post treat as admirable and lovely writings (Karnik et al. 2013).

Satiation messages are handwritings or speeches that a person express for reaching his aim to addressee or addressees until they act or think in a distinct way. Satiation messages itself consist of components which can be successful by combining and aggregating them in addressee's satiation process. These components consist of argument quality, post popularity and post attraction. Argument quality as mental penetration in addressee's mind is of importance. Every attempt to use stronger arguments to send satiation messages, it can have more penetration on addressees. Also more attractive post absorb more addressees and is caused more popularity in posts (McGrath and O'Connor, 2015).

Nowadays, one of the commodities which organizations pursuing to find customer for this is electronic product area, communication area specially phone, tablet, laptop and modern application software that have its specific customers in population different groups. These products according to variables like age, sex and inclinations of customers can have different requirements. In fact, the requirement amount and selling of these products can be known as a function of age, sex, work etc. (Wellman et al. 2001).

In today universe of adolescents, youth and even middle aged persons succeed identification and use of newest and the most efficient models of phone, tablet, laptop and their application software. Most of the people according to their vocation or education are required to have sufficient and correct information in field of newest daily changes of digital universe and electronic vehicles and related software. Also, people who have attempt to purchasing these products are interested in newest brands of producers of these products as Samsung, Sony, Apple, etc. And are interested in to acquaint from newest facilities which are in products of these brands have been presented (Hudson et al. 2016).

If shopper of these products have complete and update information, can choose the best choice between existing and identified brands in each product and achieve the most

appropriate than cost. So, customers will welcome to news sources which can prepare them these information correctly and in least time and least cost (Zhou, 2012). In proposed model of this study as case study, electronic accessory industry is considered. In this study evaluating of production like phone, tablet, laptop and applicable and skilled software will be proceeded. Because of this model will study the effect of satiation messages on beliefs and point of view of the users, it can present a vision to optimum design of satiation messages to organizations. So, satiation messages in advertising area can help customer attraction for the organization with impacting on beliefs and user's point of view and thereafter impacting on their treating aims. Although extended literature in advertising area and social media marketing is exist, but commonly conducted investigations are limited to special variables like age, sex or vocation of users or some variables like belief and user's point of view does not entered in model and it make study model without complete, comprehensive and universal.

In this study a comprehensive model based on effective variables on customer attraction like kind of satiation messages and their properties as argument quality, popularity and post attraction, beliefs and user's point of view like proficiency and post prefers is designed and proposed. So, the importance of present study can be at achieving appropriate result and make an effective step for impacting on treating aims of organization's customers.

## 2. Study Literature

Study of past of investigation is important thence that can make bases and main theories of investigation area clear and make investigator familiar with conducted similar works in related area. Also, with studying literature subject and conducted investigations can find a vision toward present study subject and occur some ideas for conducting new studies. So, in this part of study, we proceed to study conducted investigations in social network marketing area inside and outside of the country and become more familiar to literature subject.

Tavallae et al. (2016) in an investigation proceed to study the modern capabilities of social networks in extension of marketing investigations using mapping identification method.

In this study using deep seated interview method with experts to find credit of identified components in field of social network capabilities in extension of marketing investigations and identifying dimensions and conceptual model components was in this area. His study shows that social networks through four dimension of relation with beneficiaries, gathering information and contents, investigation planning, determining measurement criterion of investigation function can draw on marketing investigation extension.

Coulter and Punj, (2004) in thesis entitled studying mass communication based on social networks conducted on credit and loyalty of Branda. Investigation method in this study in order to evaluate variables of study, free and applicable study is used. Equipment of gathering data is questionnaire and statistical society is Facebook network which volume of statistical sample is 384 person. The most important results are as follows:

- Brand mass communication based on social networks have positive impact on awareness from shared emotion and beliefs and customs and moral responsibility.
- Awareness of shared emotion has positive impact on social network building activities.
- Awareness of shared emotion has negative impact on emotion management activities and brand application activities.
- Abolahian and Kermani in the year of 2013 conducted an investigation entitled the study and evaluation social investment of Iranian users of Facebook social network. In this paper, social investment theory of Rabert Potnam and methodology attitude of Frank is used for social investment evaluating building equipment and Facebook site also is

considered as study field for performing this plan. Incidentally, He attempted to gather required data for testing paper's claims by using triangulation technic and online surveying and participatory observation methods. Data analysis and study outcomes at last is used to create 10 index of social investment measurement in Facebook site.

Gulbahar & Yildirim in the year of 2015 conducted an investigation entitled studying related marketing activities with social networks and phone application in tourism. His investigation was based on obtained qualitative information from hotel's managers. In this investigation, hotels of the Istanbul city were analyzed and studied. Regarding investigation method is a qualitative investigation method and data are gathered from 19 managers of hotel. In the questionnaire of this study, 11 question is asked from participants. Aim of this study is to identify and study the impact of social networks and phone applications on marketing aims in tourism industry. He was presented in his investigation a frame for designing marketing strategies in tourism area in Turkey using social networks. Tourism organizations can apply appropriate strategies for their organization using the results of this investigation and use them toward operation of competition profits. Based on the results of this study, using customer attraction potentials and marketing by using social networks and phone software will have positive impact on customer attraction whether in international hotels and whether in local hotels.

Yadav et al. in the year of 2012 investigated the effect of using social networks for improvement of social study education in far regions. The results represent that using educational media and other learning procedures from far distance have different proficiency for both students and teachers. Among clears study process and also is an excitation and also enhance the competence and principle of students in information technology. Because technology role is increasing in daily life, learning how use the social media as an educational equipment is necessary.

## 3. Investigation Method

In this chapter studying of used investigation method is proceeded which are consist of the definition of aims and assumptions, investigation method explanation, data gathering methods- measurement equipment, testing of stability and justifiability of study, sampling method and sample volume determining and data analysis method.

Present investigation type is based on application aim. Because application investigations are studies which apply theories, lawfulness, principles and technics which is codified in basic studies for solving performance problems. Present investigation is a descriptive investigation, because proceed to describe conditions with under studying phenomena. And also based on nature and method of work performance and relation evaluation between variables are excellent. For as much as at this study evaluating of beliefs, visions and treating aims of purpose society is proceeded, this is accounted a survey that in this kind of investigation, investigators gives the questionnaire to a society to obtain scattering amount, properties, visions and beliefs of that informational society. Statistical society of this study are users of Roshtak Iranian page in Facebook social network.

### 3.1. Aims and Assumptions

Aims which are defined in this study are as follows. In the following, the study's assumption is presented.

- Determination of argument quality impact amount on efficacy
- Determination of post popularity impact amount on efficacy
- Determination of post popularity impact amount on prefer
- Determination of post attraction impact amount on prefer

- Determination of efficacy impact amount on prefer
- Investigation Assumptions
- Argument quality has positive and meaningful impact on efficacy.
- Post popularity has positive and meaningful impact on efficacy.
- Posts popularity has positive and meaningful impact on prefer.
- Posts attraction has positive and meaningful impact on prefer.
- Efficacy has positive and meaningful impact on prefer.
- Efficacy has positive and meaningful impact on like intention.
- Efficacy has positive and meaningful impact on sharing intention.
- Prefers has positive and meaningful impact on like intention.
- Prefers has positive and meaningful impact on sharing intention.

**3.2. Stability and justifiability of investigation equipment**

The method which is used in this study for stability testing is Kronbakh Alpha method. According to distribution of considered questionnaire with 29 asked question, we calculate Kronbakh Alpha for the sample number of 384 persons. Kronbakh Alpha amount of questionnaire for 384 person sample is 0.923. According to obtained amount for Kronbakh Alpha, it can be said that all in all, questionnaire enjoys an acceptable stability. At last with referring to these results, it can be use from gathered data with safety.

For accounting Kronbakh Alpha, 30 questionnaire among viewers of Roshtak Facebook page of electronic products are distributed and gathered and results were analyzed using SPSS software 21 version. Table 1 shows the Kronbakh Alpha amount of present investigation variables.

Table 1: Kronbakh Alpha amount of investigation variables

Kronbakh Alpha	Variable	
0.816	Argument quality	Satiation messages (Independent variable)
0.858	Post popularity	
0.756	Post attraction	
0.811	Efficacy	Beliefs and Visions(Intermediate variable)
0.807	Prefer	
0.923	Total Statements	

Provided measurement equipment modification (items omitting that cause increasing of alpha amount in considered component), Alpha amounts can tend to more and more to its previous amount.

So any question of questionnaire and internal similarity of question was studied but the results showed that by omitting each question the safety factor reduces, so these questions are of high precious and in none of question omission cases does not cause increase safety factor. Therefore, this subject shows internal similarity of questions. At last according to calculated safety factor and other results, it is specified that used questionnaire that Alpha amount of it is 0.923 has required value and safety (stability).

**3.3. Study conceptual model**

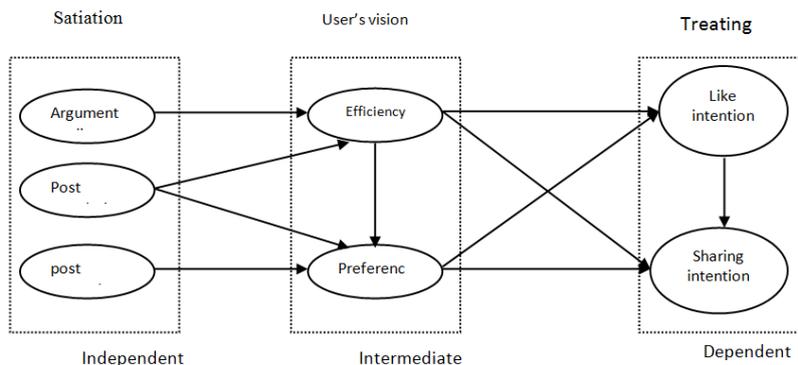


Figure 1: investigation conceptual model, adaption from

Figure (1) shows the schematic view of investigation conceptual model. In this figure, all investigation variables and their relations with each other is expressed conceptual and structural. As it is seen in this figure, effectiveness of satiation messages that is divided into three variables of argument quality, post popularity and post attraction, is studied on beliefs and user's visions. Also in another study by investigator, effectiveness of beliefs and visions is studied on 2 subset variables of treating aims. These two variables are as like intention and sharing intention.

Conceptual model of present investigation is obtained from model of source 8 that is applied some changes in it. In this study, a model was extended for advertising formularized program organization in social media area. In considering model of this study, three factor of argument quality, post popularity and post attraction is used and effectiveness of satiation messages study on beliefs and visions of users as intermediate role in model.

**4. Results**

In this section, findings and research results is presented as descriptive and illative statistic.

**4.1. Descriptive analysis of sex variable**

Results shows the sex relative frequency distribution. Based on existing findings in this table, 20.8 percent of responders were women and 79.2 percent were men. This results shows that women use less than men from network marketing and Roshtak page in Facebook.

**4.2. Descriptive analysis of age variable**

Findings shows the age variable relative frequency distribution. Based on the findings of this table; Responders average age is equal to 29.68, 19 year old with maximum mode frequency, 27 age of average variable, variable variance is equal to 121468 and standard deviation is equal to 11.01 and minimum age of

responders is equal to 16 year and maximum age of responder is equal to 80 years and variable amplitude is equal to 64 year.

**4.3. Descriptive analysis of time period variable of internet utilization**

Table 2 shows the time period variable relative frequency distribution of internet utilization between responders. Based on

findings of this table, 24.2 percent between 1 to 2 year, 46.9 percent between 3 to 4 year, 15.5 percent between 5 to 6 year and 13.4 percent more than 7 year uses internet. This shows the amount of internet utilization between responders is high. Average of 3.87 and mode of 4 shows somehow averagely near to 4 year of responders used from Internet global network.

Table 2: Responder's distribution at time period using Internet

Total	More than 8 year	7 to 8 year	5 to 6 year	3 to 4 year	Less than 2 year	Time period of using internet
322	10	33	50	151	78	Frequency
100	3.1	10.3	15.5	46.9	24.2	Percent
	Maximum:10 year	Minimum: 1 year	Variance:4.1	Standard deviation: 2.02	Mode: 4	Average:3.87

**4.4. Descriptive analysis of independent variable of post popularity**

Table 3 results shows the descriptive analysis of independent variable of post popularity in sample that shows the frequency of people numbers that have chosen the related items to each question in related questions to forgoing variable. In this table, question 5 to 7 of questionnaire that is related to this variable have been described. As you see, observed average of all

question and also the average of all questions of this variable (3.83) is more than theory average which means amount 3. This shows that the independence of post popularity is more than average. Findings of figure number (4-10) is also approve this results which have been known 72.1 percent with high post popularity, 21.4 percent with medium post popularity independence and 6.5 percent with less post popularity independence.

Table 3: post popularity independence variable relative frequency distribution

Observed standard deviation	Observed variance	Observed average	Total frequency	Post popularity					Question choice
				Frequency of responses					
				Completely Agree	Agree	No opinion	Disagree	Completely disagree	
0.907	0.82	4.15	322	135	122	51	8	6	1
0.878	0.77	4	322	101	140	64	14	3	2
0.906	0.82	4.012	322	101	151	49	15	6	3
0.830	0.69	3.83	322	62	140	69	18	3	average

**4.5. Descriptive analysis of independent variable of post attraction**

Table 4 shows the descriptive information related to independent variable of post attraction in sample that shows the frequency of people numbers that have chosen related choices of each question in related questions to forgoing variable. In this table, questions 8 to 11 of questionnaire have been described that are

related to this variable. As you can see, observed average of all questions and also average of all questions of this variable (3.93) is very more than theory average 3 and these results shows that post attraction for users of Roshtak page were high. Findings of figure number (4-11) approve these results, too, which have been known 77.8 percent with high post attraction, 20.5 percent with medium post attraction and 2.5 percent with less post attraction.

Table 4: Post attraction independent variable relative frequency distribution

Observed standard deviation	Observed variance	Observed average	Total frequency	Post attraction					Question choice
				Frequency of responses					
				Completely Agree	Agree	No opinion	Disagree	Completely Disagree	
0.85	0.73	4.24	322	147	123	39	10	3	1
0.69	0.48	4.47	322	185	109	23	5	-	2
0.74	0.56	4.17	322	116	151	49	6	-	3
0.77	0.59	4.15	322	116	149	48	9	-	4
0.7	0.49	3.93	322	62	186	66	8	-	Total average

**4.6. Checking of normalization of sample distribution of case study**

Normalization testing results of study variables is visible table 5. According to obtained P-Value amounts in table 5 that all of them are larger than 0.05, zero assumption which means normalization assumption of sample's distribution is approved in error level of 5 percent, namely there is no meaningful difference between sample's distribution and normal distribution. So, according to normalization of case study samples for testing of

study assumptions, parametric methods will be used. In next for testing of assumptions path analyze method and structural equations (SEM) will be used.

Table 5: Variables normalization distribution test

Test result	decision	p-value	Z Kolmogrof- Esmirnof statistic number	Number	Variable
Distribution is normal.	Accept zero assumption	0.342	0.863	322	Argument quality
Distribution is normal.	Accept zero assumption	0.231	0.542	322	Post popularity
Distribution is normal.	Accept zero assumption	0.324	0.452	322	Post attraction
Distribution is normal.	Accept zero assumption	0.645	0.547	322	Prefer
Distribution is normal.	Accept zero assumption	0.202	0.913	322	Efficacy

#### 4.7. Factor analysis related to independent variables

Model of independent variables using 11 index is measured. As it can be seen from table 6, these indexes consist of (k1- j4). Standardized parameter assessments shows that all indexes are

meaningful statistically ( $p < 0.05$ ) and their factor loads are in high level (more than 0.5). Also studying the results of fitting indexes signify model appropriate fitting and all fitting indexes are placed in acceptable area. So, independent measurement model is acceptable without any change.

Table 6: Accepted indexes of independent variables

Index situation	Meaning level	t-value	Factor load	Index label	Main index	Dimension
Accepted	0.000	8.99	0.60	K1	Conducted advertising in Roshtak page posts increased my information about cellphones, tablets, laptops, electronic vehicles and media area software.	Argument quality
Accepted	0.000	13.28	0.57	K2	Conducted advertising in Roshtak page posts about cellphones, tablets, laptops, electronic vehicles and media area software was useable and beneficial for me.	
Accepted	0.000	10.8	0.55	K3	Conducted advertising in Roshtak page posts about cellphones, tablets, laptops, electronic vehicles and media area software is instructive for me and increase my awareness and cognition level.	
Accepted	0.000	7.33	0.54	K4	Conducted advertising in Roshtak page posts about cellphones, tablets, laptops, electronic vehicles and media area software was sufficient and convincing for me.	
Accepted	0.000	13.97	0.66	Mah1	I think posts which is shared about cellphones, tablets, laptops, electronic vehicles and media area software are more reliable and trustworthy.	Post popularity
Accepted	0.000	18.86	0.80	Mah2	I think posts which are shared or are more admirable about cellphones, tablets, laptops, electronic vehicles and media area software are more reliable.	
Accepted	0.000	13.34	0.63	Mah3	I think posts which are shared or are more admirable about cellphones, tablets, laptops, electronic vehicles and media area software are more believable.	
Accepted	0.000	9.87	0.67	J1	Short film viewing type about cellphones, tablets, laptops, electronic vehicles and media area software in Roshtak page posts are admirable to me.	Post attraction
Accepted	0.000	10.77	0.62	J2	Photo of cellphones, tablets, laptops, electronic vehicles and media area software from Aesthetics vision are admirable to me.	
Accepted	0.000	15.66	0.60	J3	I like apparent figure of Roshtak page posts about cellphones, tablets, laptops, electronic vehicles and media area software.	
Accepted	0.000	13.05	0.54	J4	All in all, design of Roshtak page posts about cellphones, tablets, laptops, electronic vehicles and media area software are admirable to me.	

#### 4.8. Investigation final model (Investigation structural equation)

Table 7: Selection of important fitting indexes of graphic model

T	Standardized B coefficient	Graphic signal	route(Formative-Reflective)		
11.23	0.47	kifeyat	efficacy	F	Argument quality
13.96	0.53	mahbobyat	efficacy	F	Post popularity
21.52	0.80	mahbobyat	Prefer	F	post popularity
12.51	0.77	jazabeyat	Prefer	F	Post attraction
16.92	0.76	sodmandi	Prefer	F	Efficacy

## 5. Conclusion

One of the notable methods in customer attraction area and lead treating aims in media marketing area can be the messages which transfer from these media. Nowadays, social network marketing which use networks and social media toward content sharing, information publish and information connection, are of the most effective advertising methods. In this section of investigation, findings and investigation results analyze by statistical data according to investigation aim.

According to route analysis pattern and table 7 amounts of route standard coefficient, argument quality dimension are about 0.47 and (t-11.23) amount. So according to T in this route (t-|11.23| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, argument quality has a positive impact on efficacy of uses from Roshtak page and so, the relation is positive and assumption is accepted. With increasing 1 unit in argument quality variable, user's efficacy variable in Roshtak page increases 0.47. As result, with argument quality of Facebook Roshtak increasing, efficacy amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, post popularity dimension are about 0.53 and (t-13.96) amount. So according to T in this route (t-|13.96| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, post popularity has a positive impact on efficacy of users from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in post popularity variable, user's efficacy variable in Roshtak page increases 0.53. As result, with post popularity of Facebook Roshtak increasing, efficacy amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, post popularity dimension are about 0.80 and (t-21.52) amount. So according to T in this route (t-|21.52| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, post popularity has a positive impact on user's preference from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in post popularity variable, user's efficacy variable in Roshtak page increases 0.80. As result, with post popularity of Facebook Roshtak increasing, prefer amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, post attraction dimension are about 0.77 and (t-12.51) amount. So according to T in this route (t-|12.51| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, post attraction has a positive impact on user's preference from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in post attraction variable, user's efficacy variable in Roshtak page increases 0.77. As result, with post attraction of Facebook Roshtak increasing, prefer amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, efficacy dimension are about 0.76 and (t-16.92) amount. So according to T in this route (t-|16.92| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, efficacy has a positive impact on user's preference from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in efficacy variable, user's efficacy variable in Roshtak page increases 0.76. As result, with efficacy of Facebook Roshtak increasing, prefer amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, efficacy dimension are about 0.57 and (t-11.23) amount. So according to T in this route (t-|11.23| > 2.56),

it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, efficacy has a positive impact on like intention from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in efficacy variable, user's like intention variable in Roshtak page increases 0.57. As result, with efficacy of Facebook Roshtak increasing, like intention amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, efficacy dimension are about 0.73 and (t-11.23) amount. So according to T in this route (t-|15.38| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, efficacy has a positive impact on sharing intention from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in efficacy variable, user's sharing intention variable in Roshtak page increases 0.73. As result, with efficacy of Facebook Roshtak increasing, sharing intention amount of Roshtak page users is invigorated.

According to route analysis pattern and table 7 amounts of route standard coefficient, prefer dimension are about 0.42 and (t-10.05) amount. So according to T in this route (t-|10.05| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, prefer has a positive impact on like intention from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in prefer variable, like intention variable of users in Roshtak page increases 0.42. As result, with prefer of Facebook Roshtak increasing, sharing intention amount of Roshtak page users is increased.

According to route analysis pattern and table 7 amounts of route standard coefficient, prefer dimension are about 0.60 and (t-11.32) amount. So according to T in this route (t-|11.32| > 2.56), it can be concluded with 99 percent probability, H0 assumption is passed and H1 hypothesis is accepted. In other word, prefer has a positive impact on sharing intention from Roshtak page and so the relation is positive and assumption is accepted. With increasing 1 unit in prefer variable, like intention variable of users in Roshtak page increases 0.60. As result, with prefer of Facebook Roshtak increasing, sharing intention amount of Roshtak page users is invigorated.

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## THE ASSOCIATION AMONG AUDITOR'S REPORT, FINANCIAL STATEMENT AND QUALITY STOCK RETURNS

<sup>a</sup>GHASEM KHODADADIAN, <sup>b</sup>MOHAMMAD REZA SHOURVARZI, <sup>c</sup>ZAHRA NOURI ZAHRA TOUPKANLOU

<sup>a</sup>*Audi students, Magister degree, Islamic Azad University, Neyshabur Branch, Department of Accounting, Neyshabur, Iran*

<sup>b</sup>*Accounting PhD, assistant professor, Islamic Azad University, Neyshabur Branch, Department of Accounting, Neyshabur, Iran*  
<sup>c</sup>*Agriculture Economic PHD, assistant Professor, Islamic Azad University, Neyshabur Branch Department of Economics, Neyshabur, Iran.*

Email: <sup>a</sup>khodadadianqasem@gmail.com,

<sup>b</sup>mohammedreza.shourvarzi@gmail.com,

<sup>c</sup>zahra.toupanlou@gmail.com

**Abstract.** Financial reports is available sources of information on capital markets which is expected to play an effective role in improving the efficiency of investment and beneficial, the aim of this study was to investigate the effect of audit reports on the timeliness of accounting information, accounting and stock returns' impact on the reliability of the information. The period consisted of 5 consecutive years from 2010 to 2014 and samples are 114 companies listed in the Tehran Stock Exchange. Test the hypothesis of the present study is based on panel data regression analysis and using EViews software, the significance relationship between variables investigated. The results of the research showed that the accounting report has no significant impact on the timeliness of information but has a significant effect on reliability.

**Keywords:** audit report, the reliability, timeliness, stock returns.

### 1 Introduction

Research and analysis of all aspects of securities markets and draw correct conclusions can speed up the development of these markets. Valid world exchanges have shown successfulness in maintaining and raise capital, and it is resulted of the confidence of investors to capital markets and market efficiency, so that they know do not waste investments and brings reasonable profits. Research on various issues affecting the stock market can help to shareholder to make correct decisions and the efficient allocation of economic resources to be the efficient allocation of economic resources to make more favorable investment situation (Ghaemi et al. 2003). In the present competitive world that reducing the cost and time efficiency are so important, competition in the auditing profession in the world and particularly in developed countries has been significantly intensified. Audit firms to remain competitive and increase their share in the global market, have to implement the principles and techniques of planning and management in their institutions. To achieve these two important points must consider: increasing the quality and reduce the price of goods and services (Firth, 1993).

Today, due to the expansion of economic activities, financial markets and investment boom in the capital markets, especially the stock exchange by natural and legal persons, access to accurate information, timely and realistic analysis of them are the most important tools to make the right decisions, achieve the expected benefits, financial facilities, efficient and optimal use. Information in today's society play a significant role in human life and whatever more advanced society of more and better uses. One of the reasons progress in developed societies is optimal and effective use of information. The end product of accounting, is providing information for different users ranging from internal users and outside users of the company, in the form of accounting reports. The group of accounting reports prepared and presented, with aims to meet the information needs of users of outside the company, placed in the area of financial accounting (Vaghfi, 2009). The main philosophy of the audit is to validate the data reflected in the financial statements; because mentioned information is the base of the decision-making groups such as shareholders, potential investors, agents, managers, financial consultants, analysts, creditors and the government. Therefore the audit of the users' perspective is especially useful when shareholders during their proceedings to investigate and

evaluate the continuity of the establishment, freedom from false financial statements, pay to significant fraud and illegal acts affecting the entity's activities and agreed to abide by the above declare (Amini et al., 2011).

Transparent and reliable financial information are produced by a comprehensive reporting system and it counts also a key element of assessing the financial condition and performance of a company and make decisions about exchange of securities issued. In today's professional communities from the perspective of users, the information is deemed reliable that an independent agency on the company's reporting process and at the center of this process means monitor the financial statements. The examples of these organizations are audit firms which mainly are monitored and evaluated in the internal control structure of the reporting unit the final product of the financial statements and internal control. The most important and valuable service the auditing profession are, independent and expert opinion about the desirability of the financial statements. (Publication 105 Corporate Audit). Auditors with the reliability to the financial statements, financial reporting and transparency of financial markets play a crucial role to play in the process. Audit report as the end product of the audit, the nature of the goods (services) are public, which the use of which do not prohibit the use of other public services and its use is not restricted to any one user. Public goods like other goods and services must have appropriate quality to be continuing demand for it. If the audit is a means of monitoring the multiple roles to undertake these, assuming the other conditions permanently, forms of STI policies have audited financial high quality, will be reliable and more confident to consumers of goods (services) (Hassas Yeganeh and Jafari, 2010). The effect of an audit opinion on stock returns in alignment depend on the auditor's theory, shareholders and investors. If the audits' idea is different with the shareholders and investors according to official auditor access to information within the enterprise, his theory has the response of shareholders. The existence of reliable financial information, one of the requirements for the development and production of human science. The investor's decision to buy or sell stocks, a banker who decides on the approval of a loan application, the state to collect taxes based on the tax returns, they rely on information that is provided by others. Auditors did not comment on correcting intentional or unintentional mistakes in financial statements, and the quality of accounting information as a basis for decision makers raise investors. As mentioned in problem statement, the purpose of this study, is investment the effect of the audit report on the quality of accounting information and stock returns of companies listed on the Stock Exchange. In fact, the purpose is the answer to this question: whether or not the information content of the auditor's report for the users? Is there a significant relation among the kind of audit report, timeless information, reliability, financial statement and stock returns? With the intensification of competition in different fields such as accounting, auditing institutions they are looking for ways to increase the efficiency of their efficiency that to achieve this goal, they must identify important factors of efficiency and strive to eliminate or minimize its inhibitors, for this cause, auditors need a tool to warn himself to the risk of distortion, one of these tools is the use of analytical methods. Analysis of financial and non-financial variables can also be the means for the implementation of analytical methods reasonable assurance level that is associated with the issuance of the audit opinion. In this study seeks to provide useful information to users of our accounting and auditing practice, infect in this research tries to follow (main purpose of accounting is to provide useful information for decision-making).

We try in this research to answer the following question is there a significant relation between the auditor's report and the timeliness of accounting information?

Is there significant relation between audit report and stock returns?

To answer these question, formulated the following hypotheses:

- 1) There is a significant relation between the auditor's report timeliness of accounting information.
- 2) There is a significant relation between the auditor's report and the reliability of accounting information.
- 3) There is a significant relation between audit report and stock returns.

## 2 Audit report, stock return and quality of disclosure

### 2.1 Financial reporting

According to theoretical concepts of financial reporting, the financial statements purposes are included summarize and classify the information provided about the financial position, financial performance and financial flexibility of commercial unit which for a wide range of users in making economic decisions is directly applicable to financial statements. Achieving this goal requires the information has primarily been relevant and reliable and secondly, be understandable and comparable. Financial reports is available sources of information on capital markets which is expected to play an effective role in improving the efficiency of investment and beneficial (Modares and Hesar Zade, 2008) the purpose of financial reports require some specific traits that called quality of accounting information. Qualitative information characteristics make useful information and when dealing with accounting choices (choice of accounting methods, reporting forms and information that must be disclosed) to be searched; these are the criteria that determine what information is relevant for purposes of decision-making (Babajani and Azimi Yancheshmeh, 2012).

### 2.2 Disclosure Quality

According to Brown and Hillegeist (2006) disclosure quality shows the general awareness ability of disclosed information and depend on the volume of disclosed information, timeliness and accuracy of it. Some researches consider disclosure quality related to continuous release timely information and awareness. According to them, the companies with disclosure quality the probability to refuse unfavorable and valuable is lower. Disclosure quality refers to the ease of studying and interpreting financial reports. When the volume of information, timelessness and the accuracy of disclosure be aware of the obvious cause and investors about the value of securities after receiving the data reach rightly believed, disclosed information has high quality. Therefore, disclosure quality affects the value of the securities. It is expected after increasing disclosure quality, the information content of earnings increase and reported earnings effect on behavior of investors. Information disclosure quality is reported one of the most important factors for evaluation information. If the quality of disclosure increase, information provided are greater and reduce credibility, confidential information and information asymmetry. Full disclosure and transparency of financial reporting can make certain circumstances as increases investor confidence. Transparency have a positive impact on shareholders performance and can protect their interests. Increasing investor confidence, reduced expected returns and value of company increases (Kurdistani and Hosseini, 2013). The results show that between independent variables of profit error forecast and the adjustments annual earnings with variable delay in the issuance of the audit report negative significance was established and there is no relation between the independent variable of disclosure quality rating companies the delay in the issuance of the audit report. Among the control variables, firm size, size of audit firm, having good or bad news and the company's debt, only the size of the company with variable delay in the issuance of the audit report has been negative

significance and other variables are not any significant relationship (Mollaymeny and Marfou, 2015).

### 2.3 Stock returns

In theoretical foundations of financial reporting has been pointed the role of financial investors' decision-making. One of the criteria for the usefulness of financial information and explanatory power of prediction is this information. Hence investors with financial information to evaluate and predict stock returns (Hashemi and Motalebiyan, 2013). Francis et al (2013) suggest that investment is a money transfer that is expected to followed additional money. Every investment involves a degree of risk which entails the loss of the money in time to get its benefits. In fact, the main variable efficiency in the decision to invest. Return is a factor to compare the real benefit that create by investors to returns to offset investment risk. Although, researches in other countries, similar research has not been done in Iran; however, corporate governance and other structures have been studied alone such as corporate governance and firm performance (Mashayekh and Ismaeli (2006), Ghaemi (2009)), corporate governance and profit divided (Fakhari and Yusuf Ali Tabar (2010), corporate governance and audit quality (Ahmadpur and Kashanipoor (2010), corporate governance and agency expenses (Noroush and Karami (2009) but less study has been done in this field.

Nikoumaram (2011) evaluate the relationship between the cost of equity and six aspect of earnings quality. Six aspect of earnings quality are based on accounting information contained accrual quality, earnings variability, discretionary accruals, the common factor, the predictability of the earnings and profits are being paved. Hypotheses test showed that generally companies with a minimum acceptable value for each benefit quality (any quality was considered separately) compared to firms with maximum optimal value, are higher than the cost of equity. The common factor in the cost of capital was not confirmed and discretionary accruals relationship is contrary to the cost of capital. Among the other four indicators of earnings quality, "AQ" is the highest impact on the cost of equity. In addition, the explanatory power of the model includes six indicators for earnings quality is more than explanatory power models which used only one of the indicators of the profits as independent variables. Therefore it can be said that earnings quality has a significant negative correlation with the cost of equity. The results of this study could remind the importance of earnings quality, from investors and other stakeholders' points of view.

Setayesh and Zolfaghari (2011) were examined the impact of the quality of disclosure on liquidity and current and future cost of equity capital firms listed in the Tehran Stock Exchange.

In this regard, the criteria for assessing the liquidity of the stock turnover rate, the number of shares traded and the volume of quantification exchanges were used. Survey 105 companies during the period 2004 to 2008 findings, show that there is a significant and positive relationship between firm size and its current and future liquidity, but there is not a significant relationship between disclosure quality and current and future liquidity of the companies. Moreover, there is a significant negative relationship between disclosure quality and cost of equity in current and future capital of company. However, no evidence observed a significant relationship between firm size and the current and future cost of equity capital. Pereira (2009) evaluate the relationship between corporate governance, the quality of accounting information and the independent auditor's report for the 419 companies listed on the stock Sao Paulo, Brazil. In addition to content analysis was conducted on data governance and financial year 2006 of these companies, Logit model is used by independent auditors to examine the relationship between governance mechanisms such as the presence of members with financial expertise on the board, the audit committee and the audit 4 large institution, to provide an unqualified opinion. The results of this investigation showed that the dominant characteristic of auditors qualified opinion to

express appeal for companies that had used their financial statements, included, they were no board members with financial expertise, they were independent auditors services other than four large auditing firm, they were reportedly will have negative net worth and generally privately controlled and have non-institutional investors and most of them were involved in legal disputes. In the following stated that the probability of error of 5% there is a significant communication between a board of directors with financial expertise, and the four largest audit services with unqualified opinion by the auditors. But no evidence of a relationship was found between the presences of the Audit Committee of the Company control structure, with an unqualified opinion by the auditors.

Pereira (2009) has stated that internal auditors have a close relationship with managers, therefore they can monitor the issuance of reports and management decisions. Institutional owners have effective monitoring to corporate managers and can increase the efficiency of capital market information.

Ali Shah and colleagues (2009) have reported negative relationship between active participation of institutional owners and earnings management.

### 3 Methodology

Table 1: variables and definitions

Variable symbol	Variable type	Variable name
Report	Independent	Audit report
Time	Independent	Timelessness of information
Reliability	Independent	The ratability of accounting information
Ret	Dependent	Stock return
Size	Control	Size of the company

The statistic society in this study included all active companies in the Tehran Stock Exchange which mentioned limits the number of 570-year- companies are selected Due to the availability of information throughout the company, all data to test hypotheses have been selected. In this study, to test each hypothesis only panel data is used. The reason is that using cross-sectional data econometric estimation models may be associated with problems of inefficiency and inconsistency. As a result of all mentioned, to analyze test hypotheses on the results of the estimation model is based on the combined data.

In this study, the comparative method is used for understanding literature and inductive method is used to collect data and test hypotheses. The research territory to determine population, are the sample, collect data and test research hypotheses, in Tehran Stock Exchange.

The time period is 2010 to 2014 to collect data and test hypotheses that is a 5-year period.

#### 3.1 Test hypothesis model

1. The auditor's report is not a significant relationship timeliness to accounting information.

$$\text{Time} = \alpha_0 + \alpha_1 \text{ report} + \alpha_2 \text{size} + e$$

2. The auditor's report is a significant relationship to reliability of accounting information.

$$\text{Reliability} = \alpha_0 + \alpha_1 \text{ report} + \alpha_2 \text{size} + e$$

3. Audit report is significant relationship with stock returns.

$$\text{Ret} = \alpha_0 + \alpha_1 \text{ report} + \alpha_2 \text{size} + e$$

The study variables is presented in table 1.

### 4 Data analysis

#### 4.1 Descriptive statistics of variables

Since the data is usually summarized by calculating statistics such as mean, standard deviation, minimum, maximum, range, and coefficient of variation takes place, therefore, to examine and analyze primary data, at first information concerning the descriptive statistics and explanatory variables studied in this research is presented in the table to overview of the data analyzed in this study were obtained. The descriptive statistics of variables used in the study is presented in table 2.

Table 2. Descriptive statistics of variables used in the study

Size	Lever	Quick ratio	Current ratio	Reliability	Timelessness	Stock return	Variable characteristic
5.96	0.62	0.10	1.38	54.31	78.43	0.21	Average
5.89	0.62	0.06	1.22	62.31	82.79	0.14	Middle
8.26	1.57	1.41	10.95	99.87	100	8.06	Maximum
4.56	0.09	0	0.22	0	0.84	-6.22	Minimum
0.61	0.20	0.13	0.91	33.88	19.28	0.66	Standard division
3.69	1.48	1.41	10.72	99.87	99.16	14.28	Variation range
0.10	0.33	1.34	0.66	0.62	0.25	3.13	Coefficient of variation

Adjustment and classification of data are draw and calculate values such as mean, median, etc. which shows the profile of every member of society. Descriptive statistics data from a group, described that group and obtained information cannot be generalized to the same category. The mean and median are the most common measures of central tendency. In this study, the average stock return 0.21, timeliness 78.43, reliability 54.31, current ratio 1.38, quick ratio 0.10, leverages 0.62 and liquidity is 5.69; and median, respectively, 0.14, 82.79, 62.31, 1.22, 0.06, 0.62, 5.89, which shows the numeric value located in the middle

of a data set. The standard deviation as a dispersion index shows how much the data average distance from average value. The current ratio is the lowest dispersion.

#### 4.2 This model estimation and hypothesis testing

The null hypothesis: there is not a significant relationship between the type of auditor's report and timeliness of information.

First assumption there is a significant relationship between the type of auditor's report and timeliness of information.

Control variables of current ratio, leverage and audit ratings have a significant impact on reliability of the information. The first model results are presented in table 3.

Table 3. The first model results

Time <sub>it</sub> = α + β1Report <sub>it</sub> + β2size <sub>it</sub> + β3Lev <sub>it</sub> + β4Rank <sub>it</sub> + β5Current <sub>it</sub> + β6Ani <sub>it</sub> + ε <sub>it</sub>			
The significance level	T statistics	Variable ratio	Variable
0.27	1.09	0.68	Reports
0.000	4.71	18.78	size
0.09	1.67	2.39	Current ratio
0.000	-4.04	-18.001	Lever
0.04	-1.98	-0.49	Auditor rank
0.81	0.23	0.93	Quick ratio
0.79	-0.25	-5.73	Intercept
	0.84		R2
	0.79		Adjusted R2
	18.31		F
	0.00		Probe
	2.00		Durbin-Watson statistic

#### 4.3 The first hypothesis result

According to significant level of variable the auditor's report 0.27 (more than 5 hundredths of error is considered) the null hypothesis is accepted. The auditor's report is not a significant relationship timeliness to accounting information. The size of controlling variables, leverage and audit ratings have a significant impact on the timeliness of information.

Statistics F show the Overall significance of regression coefficients, Durbin-Watson statistic with 2.00 reflects the lack of correlation between the disturbing elements. The coefficient of determination and adjusted coefficient of determination

models are 84 percent and 79 percent respectively; thus, we can conclude that the regression equation, only about 79 percent of the dependent variable changes explained by the independent variables.

#### 4.4 The second model result

The null hypothesis: there is not a significant relationship between the type of auditor's report and reliability.

First assumption: there is a significant relationship between the type of auditor's report and reliability. Its results are presented in table 4.

Table 4. The second model results

Reliability <sub>it</sub> = α + β1Report <sub>it</sub> + β2size <sub>it</sub> + β3Lev <sub>it</sub> + β4Rank <sub>it</sub> + β5Current <sub>it</sub> + β6Ani <sub>it</sub> + ε <sub>it</sub>			
The significance level	T statistics	Variable ratio	Variable
0.00	4.30	1.63	Reports
0.99	-0.00	-0.002	size
0.00	5.94	2.42	Current ratio
0.000	-6.27	-7.04	Lever
0.000	-3.52	-1.27	Auditor rank
0.81	0.23	-44.72	Quick ratio
0.000	-20.79	-5.73	Intercept
	0.98		R2
	0.98		Adjusted R2
	244.08		F
	0.00		Probe
	2.17		Durbin-Watson statistic

#### 4.5 The first hypothesis result

According to significant level of variable 0.00 (more than 5 hundredths of error is considered) the null hypothesis is not accepted; there is a significant relationship between the type of auditor's report and reliability. Statistics F show the Overall significance of models' coefficients, Durbin-Watson statistic with 2.17 reflects its lack of correlation between the disturbing elements. The coefficient of determination and adjusted coefficient of determination models are 98 percent and 98 percent respectively; thus, we can conclude that the regression

equation, only about 98 percent of the dependent variable changes explained by the independent variables.

#### 4.6 The third model result

The null hypothesis: there is not a significant relationship between the type of auditor's report and stock return.

First assumption: there is a significant relationship between the type of auditor's report and stock return. The third model result is presented in table 5.

Table 5. The third model results

Ret <sub>it</sub> = α + β1Report <sub>it</sub> + β2size <sub>it</sub> + β3Lev <sub>it</sub> + β4Rank <sub>it</sub> + β5Current <sub>it</sub> + β6Ani <sub>it</sub> + ε <sub>it</sub>			
The significance level	T statistics	Variable ratio	Variable
0.54	0.61	0.02	Reports
0.67	-0.42	-0.20	size
0.10	-1.62	-0.04	Current ratio
0.06	-1.86	-0.33	Lever
0.93	0.07	0.002	Auditor rank

0.000	3.80	0.43	Quick ratio
0.56	0.57	1.61	Intercept
	0.28		R2
	0.07		Adjusted R2
	1.37		F
	0.01		Probe
	2.5		Durbin-Watson statistic

#### 4.7 The third hypothesis result

According to significant level of audit report 0.54 (more than 5 hundredths of error is considered) the null hypothesis is not accepted; there is not a significant relationship between the type of auditor's report and stock return.

Quick variable also has a significant effect on the control variable returns. Statistics F show the Overall significance of models' coefficients, Durbin-Watson statistic with 2.5 reflects its lack of correlation between the disturbing elements. The coefficient of determination and adjusted coefficient of determination models are 27 percent and 7 percent respectively; thus, we can conclude that the regression equation, only about 7 percent of the dependent variable changes explained by the independent variables.

#### 5 Discussion and Conclusion

In this study, has been paid to the effects of auditing report on the timeliness of accounting information, the impact on the reliability of accounting information and stock returns. The results of the first and second test hypotheses shows accounting report has no significant impact on the timeliness of information, but has a significant effect on reliability.

It can be resulted when investors and other users of financial reports do not have the same equal time access to information, this issue potentially reduces the content of information accounting reports and affect the performance of the audit and subsequently of reliability financial statements. These results disagree with the results of Karhashmy Bahreman and Banimahd (2015) that show the audit report showed a negative relationship with the timeliness of information. This result also against are Pourhoseini (2010). In a study entitled "The Relationship between financial and non-financial aspects and time of completion of audit firms listed in the Tehran Stock Exchange" he states that given that timeliness is one of the most important characteristics of financial information. The interval between the publication dates of the financial statements of the fiscal year of business units are shorter, benefit from the annual financial statements of entities increases. The controlling size variables, leverage, and current and the audit rated impact on the timeliness of the information and the reliability of information. This result is in line with Smile and Chandler (2004) is in line to check the timeliness of financial reports Malaysia's midterm companies. They studied regarding the timeliness of financial reporting and the characteristics of the size of profitability, growth and capital structure of the company studied in their research. The results showed that despite the fact that companies are more tend to provide timely financial reports. But they found that the timeliness of financial reporting period by size, profitability, growth and leverage the company will be affected. The results also showed that larger companies and companies with profitability, growth and leverage provide midterm financial reports faster. The results of the test show that the third hypothesis audit report has no significant effect on stock returns. These results are consistent with studies mentioned in the following. Chen Vezayv (2000) paid in the Shanghai Stock Exchange in the period 1997-1995 to assess the impact of contingent and non-contingent with section description audit report on their stock prices and returns. They used market model to calculate abnormal returns. The results showed that the

market reaction to any of these reports there is no significant difference. Puchenta et al (2004) in Spain, using event study method to examine the capital market's reaction to the qualified audit reports. They concluded that qualified audit reports has no value for users of the information. Alsa Nybyt et al (2008) to assess the information content of audit reports of Stock Exchange Jordan, examined the impact of qualified audit reports on stock prices. Their research results indicate the reported condition had no impact on stock prices. Also, the quick control variable also has a significant effect on returns.

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## THE RELATIONSHIP BETWEEN ENERGY CONSUMPTION AND ECONOMIC GROWTH: THE CASE OF OPEC MEMBER COUNTRIES

<sup>a</sup>FATEMEH DEHDASHTI GOLZAR, <sup>b</sup>ALIREZA JERJERZADEH, <sup>c</sup>MASOUD KHODA PANAH

<sup>a</sup> Department of Economics, Khuzestan Science & Research Branch, Islamic Azad University, Ahvaz, Iran

<sup>b</sup> Department of Economics, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

<sup>c</sup> Department of Economics, Ahvaz Branch, Shahid Chamran University, Ahvaz, Iran

Email: <sup>a</sup>fatemeh.dehdash.g7@gmail.com,

<sup>b</sup>fa\_golzar68@yahoo.com, <sup>c</sup>m.khodapanah.1919@gmail.com

**Abstract.** Last decade can be called as economic and industrial development decade. Development process of economic processes has been accelerated in recent years. With the onset of the industrial revolution and forming machine industry, energy became as one of the primary and most important factors of manufacturing in industry. This research studies the relationship between energy consumption and GDP, imports and exports of OPEC countries over the period of 1990-2014 were analyzed using panel data. The results showed that the growth of GDP, exports and imports has positive and significant effect on energy consumption in countries that were studied. Finally, the researcher suggests to reduce energy consumption and increase the efficiency of production, an increase in productivity of production technology and modernization of production equipment is essential.

**Key words:** GDP, imports, exports, energy consumption, selected countries of OPEC, panel data

### 1. Introduction

Evolution of the economy in the last century, has been associated with variety of energy applications but in the seventies oil shocks and economic recession in the West, caused role of energy to have a special place in economic developments and in the eighties the relationship between energy consumption and economic growth to be the focus of economic analysts (Sadorsky, 2011). During the last thirty years, many emerging and developing economies, have experienced rapid growth in trade, production and energy consumption and many studies have been done on the relationship between energy consumption and GDP (Dedeoglu and Kaya, 2013).

Studying relationship between energy and trade from different directions is important. If energy consumption is cause of export or import, any reduction in energy consumption such as energy-saving policies, will reduce export or import and trade benefits and will neutralize trade liberalization policies that are designed to boost economic growth. In fact, in these conditions, energy conservation policy is in contrast with the policies of trade liberalization. But if there is one-way causality from export or import to energy, energy saving policies won't have mentioned negative effects (Sadorsky, 2011).

Countries studied in this research which included selected OPEC member countries are the world's major oil exporters and OPEC members. The importance of energy consumption in these countries arises since that, firstly, since the country's income is mainly from oil, loses a lot of financial resources by inefficient use of energy inside; secondly as time goes on fossil energy sources or the oil and gas reduces in exporting countries. So if these countries won't make their energy consumption more efficient or not reform their infrastructures, will face serious problems in next few years (Mukherjee and Chakraborty, 2010).

The aim of this study is to investigate the relationship between energy consumption and economic growth in selected countries of OPEC during the period 1990-2014 using panel data.

### 2. Review of empirical literature

Sadorsky (2011) also introduces and estimates an empirical model of renewable energy consumption for countries in the

group7 for the period of 1980-2005. Co-integration Panel estimates in this study shows an increase in real per capita GDP and Carbon dioxide emissions per capita is as the main drivers for renewable energy consumption per capita in the long term. On the other hand, rising oil prices have had small and negative effect on renewable energy consumption. According to the research findings, long-term elasticity estimated by the cointegration panel of FMOLS model show that 10% increase in real per capita GDP, 8.44 percent increases renewable energy consumption. While 1 percent increase in per capita carbon dioxide will increase 5.23% per capita consumption of renewable energy.

Apergis et al. (2010), test the causal relationship between carbon dioxide emissions, nuclear energy, renewable energy and economic growth for a group of 19 developed and developing countries for the period of 1984 to 2007 using error correction panel model. They have expressed bidirectional relationship between renewable energy and economic growth means that Expansion of renewable energies will not only can reduce dependence on external energy sources for import-dependent economies, but also this factor can reduce the risk resulting from fluctuations in the supply of natural gas, oil and prices.

Deedgula and Kaya (2013) in a study evaluated the relationship between energy consumption, export, import and GDP for OECD countries over the period of 1998 to 2010 using integration panel method and use of Granger causality test. The model was estimated for this purpose have been as follows:

$$\text{Energy} = F(\text{GDP}, \text{Import}, \text{Export})$$

In top model the Energy is energy consumption, Import is import and GDP is based on 2005 fixed price and the Export is export.

At first existence of long-term relationship is evaluated using co-integration regression in model and after securing the long-term relationship between the research variables investigated the causal relationship between energy consumption with import, export and GDP (Armen and Zare, 2010). The results showed that export, import and GDP have significant and positive relationship with energy consumption. Other results of the research showed that there is bidirectional Granger causality relationship between energy consumption-GDP, energy consumption-export and energy consumption-import and mark of long-term stretch between variables is positive so that one percent increase in GDP, exports and imports respectively causes an increase of 0.32, 0.21 and 0.16 percent in energy consumption (Zellner, 1962).

Behboodi et al. (2010) in an article entitled "Study of the relationship between energy consumption and GDP in developing and developed countries" studied use of Johansen cointegration test. The results showed that in the long run there is two cointegrating vector between variables in selected developing and developed countries. Although these two vectors are different, during the studied period developed countries are in higher level of energy consumption than developing countries and amount of long-term impact of energy consumption on GDP in these countries is less than developing countries.

Maleki (2015) in a study investigated the causal relationship between energy consumption and economic growth over the period of 1360-1380. The results of estimated model showed that any changes in energy consumption both in the short and in the long run could affect economic growth, so that any limitation in its use can reduce economic growth.

### 3. Model and analysis of data

The model used in this study is as follows that is adapted from Ting-Huan et al. (2010) research:

$$\text{Energy} = F(\text{GDP}, \text{Import}, \text{Export})$$

In the above model the Energy is energy consumption, import, and GDP is based on 2005 fixed price and the export.

This research is based on combined data methods. When the panel data is used different tests should be done for diagnosing the proper estimation method. The most common test in this field is Chow test and Hausman test. Chow test is used to test between ordinary least squares method and the fixed effects model. In this test, the null hypothesis expresses the equality of coefficients and intercept in studied data. Thus, rejection of the null hypothesis indicates using panel data and not rejecting the null hypothesis indicates using merged ordinary least squares method. If it is determined in Chow test that separate intercepts can be considered for all sections or times In this study, then

should attempt to test choose between estimates with group or time random-effects. The main assumption in fixed effects model is that error term could be correlated with the explanatory variables, while in random effects model it is assumed that there is no correlation between error term and explanatory variables. Hausman test also uses chi-square criteria. If the probability of the test statistic is more than 5%, at the significant level of 0.95 % random effects can be preferred to fixed effects; otherwise fixed effects are chosen.

### 4 Model estimation

According to what was said desired model is estimated using panel data. The results of estimated model are in following.

If time series variables are non-stationary, the coefficients will lead to a spurious regression. In the first stage unit root and co-integration test of panel takes place on model variables in order to prevent spurious regression. In this study, the Levin, Lin and Chow tests are used. The null hypothesis of test indicates non-stationary of variables.

Table 1: unit root test on the level and the difference of variables

Variables	Levin, Lin & Chu (First difference of variables)		Levin, Lin & Chu (level of variables)		collective degree
	Statistic	Probability	Statistic	Probability	
GDP	-11.22	0.000	1.96	0.97	I(1)
Energy	-	-	-7.70	0.000	I(0)
Export	-	-	-17.84	0.000	I(0)
Import	-	-	2.76	-3.76	I(0)

Source: Researchers findings

As Table 1 shows that all research variables are static except GDP, but first difference of GDP is static. In other words, GDP are I(1).

Cao co-integration test is used to prove non-falseness of regression in this study. T statistic value in Cao's test is obtained as (3.25-) and the P-Value equals (0.003) which confirms the existence of co-integration so it can be said that there is a long-run balance relationship between independent and dependent variables. After securing co-integration relationship, it is

necessary to determine the type of panel data estimation method in order to estimate the model. So, initially to determine the presence or absence of a separate intercept for each of these countries the F-statistic is used. Then, the Hausman test is used to test if the model is estimated by fixed effects method or random effects. The results of the F test, confirm estimation of model using fixed effects. Hausman test also indicates approval of fixed effects model against the random effects. Table 2 shows the results of Chow and Hausman test.

Table 2: Results of Chow and Hausman tests

Type of test	Significant level	Test statistic	Type of test	test results
Chow test	0.000	151.54	Chow test	Approval of fixed effects model against the pooling data model
Hausman test	0.000	22.26	Hausman test	Approval of fixed effects model against random effects

Source: Research results

The results of model estimation with fixed effects is shown in table (3).

Table 3: Model estimation with fixed effects

Explanatory variable	Dependent variable : Energy		
	compound data test		
	Prob	T-statistic	Coefficient
GDP	0.05	1.890	0.630
Import	0.021	2.25	0.180
Export	0.000	5.69	0.277
Constant	0.0000	-24.48	-11285.9
F statistic	265.96		
P-value	0.0000		
R <sup>2</sup>	0.87		
Adjusted R <sup>2</sup>	0.88		
DW	1.96		

Source: research results

Based on the results of table (3), F test represents significant of the regression. Based on other results, the variable GDP, has positive and significant effect on energy consumption in the studied countries. expressly, the increase of production, has

increased the energy consumption in this countries. In some new theories, although the energy factor together with other factors is considered in the model, but its importance in various models, is not the same. Thus, according to existing theoretical

foundations, about justification of the relationship between energy consumption and GDP, existence of such relationship can be rationally logical and considered theoretically. Also the import factor has significant and positive effect on energy consumption. In fact, the increase in imports has increased the energy consumption in studied countries. Import and export variable, have had significant and positive effect on energy. Also the increase in exports and imports and has increased the energy consumption in these countries (Angeliki, 2011). Specifically trade includes exports and imports of goods and theoretically there are several reasons for why exports could affect energy consumption. To make growth happen in exports, machinery and equipment for loading and transportation of exported goods should be sent to ports, airports or unloading stations. Machinery and equipment in the manufacturing process and transportation of goods for export, are in need of primary energy and any increase in exports, represents growth of economic activity and this growth will increase energy demand. So the export of manufactured goods require energy for transportation, means without enough energy to transport, the export expansion will be weakened. Imports can also affect energy consumption. If importing include machinery, equipment and new technology will cause an increase in production and increased use of energy. In addition, imports of goods are done through the transport network which causes the fuel consumption by the transport system (Stern and Cleveland, 2004).

## 5 Conclusions

Nowadays issues related to energy consumption and amount of its consumption in different sectors, is one of the most important issues in policy and planning of countries. In this study, the relationship between energy consumption and GDP, importing and exports of selected countries in the Islamic Middle East during the period of 2014-1990 were analyzed using panel data. The results showed that GDP, importing and export have had significant and positive effect on energy consumption in studied countries (Akarca and Long, 1979). Suggestions of this research is presented in two parts for studied countries in general and Iran in particular:

According to results of this study and export and import's direct effect on energy consumption, in the absence of a systematic program, increased demand for energy, could have adverse effects on the environment. So it is recommended to run strategies to reduce energy consumption in the transport sector, especially in the export and importing of goods so that we can reduce the amount of pollution emitted by vehicles. Based on previous studies, the use of rail freight is one of the best ways of transporting in terms of pollution. In Iran, one of the goals and visions of economic development, is to achieve first place in economic, science and technology in the South West Asia with an emphasis on software movement and science production, rapid and continuous economic growth, and the relative improvement per capita income in reaching full employment. According to conjunction of oil and gas markets in the world, in the shadow of economic globalization and nonrenewable energy and resource scarcity, oil embargo against Iran, will reduce pace of development of energy resources in Iran. Therefore increase in productivity of production technology and modernization of production equipment is essential in order to reduce energy consumption and increase the efficiency of production.

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## STUDY THE EFFECTIVE FACTORS OF PRODUCT ATTRIBUTES ON IN-GROUP AND OUT-GROUP WORD OF MOUTH ADVERTISING (WORD OF MOUTH MARKETING), CASE STUDY: EMPLOYEES OF QAZVIN GLASS FACTORY

<sup>a</sup>HOSSEIN SHAFAGHI, <sup>b</sup>ZHALEH ZAREI

<sup>a</sup>MA in Business Management, Department of Economics & Management, Abhar Branch, Islamic Azad University, Zanjan, IRAN.

<sup>b</sup>Faculty Member of Monetary & Banking Research Institute, Tehran, IRAN

Email: <sup>a</sup>hshafaghi59@yahoo.com, <sup>b</sup>zhale.zareim.20@gmail.com

**Abstract.** Statistical population of the research included the employees of Qazvin Glass Factory. Due to the high number of the members of studied population, it was used simple random sampling. Samples were obtained from 292 people, based on Cochran formula. For testing hypotheses, it has been used univariate regression and independent two-sample t-test to study in-group and out-group word of mouth advertising due to normal variables and independent errors. Results showed that newness and usefulness of the products has positive and significant effect on the creation and the amount of in-group and out-group word of mouth advertising. In addition, results from two-sample t-test showed that successful function of in-group word of mouth advertising is higher than out-group word of mouth advertising.

**Keywords:** Newness of the Product, Usefulness of the Product, In-group and Out-group Word of Mouth Advertising

### 1. Introduction

Researches conducted by researchers have continuously showed the importance of word of mouth advertising in shaping attitudes, purchase decisions, and decreased risk related to customer purchase decision. Today, positive word of mouth advertising is considered as a very powerful tool to promote product sales so that it quickly place unknown and obscure products into the path of fame and unbridled trade reputation. Many marketers have also considered positive word of mouth advertising as one of the oldest forms of marketing communication. In many situations, it is possible that word of mouth advertising is one of the most powerful forms of communication, especially by a person whom we know and believe him.

Today, word of mouth marketing is growing very fast. According to Clarify research group, word of mouth advertising has become the Holy Grail of marketing. Word of mouth marketing is a type of marketing that motivates people to iterate your marketing message to others. It gives people motivation and reason in order to speak with each other about your company products/services. Multi Level Marketing Company (MLM) has first used the word "word of mouth marketing" in 1980 in Australia. MLM Company who was one of producers of diary products, could increase its sales amount several times using promotion method. Word of mouth advertising has long been considered as a factor affecting on consumer behavior (Moldovan et al. 2011). Word of mouth advertising points out to informal communications about products that could be in the form of product or service (Moldovan, 2011). As word of mouth advertising is a communication between a receiver and a connector, it is often reported as a non-commercial communication, which is understand (Lam et al. 2009).

Word of mouth advertising can have positive and/or negative capacity. According to the researched conducted by Lam et al. (2009), when word of mouth advertising is positive, it will considerably affect on consumer decision making to get a product. When there is negative, information or rumors related to word of mouth advertising, it will cause to separate the customer from that product or trademark (Lam et al. 2009). People often share important opinions, information, and word of mouth advertising, which will effect on product to be successful (Berger et al. 2010). To buy a new product, consumers often rely on word of mouth advertising to obtain information and consultation (Moldovan et al. 2011).

Various factors effect on the creation of word of mouth advertising including product attributes, cultural factors, the power of relationship between the sender and receiver of a message, specialty of message source, and the characteristics of individuals. According to the research conducted by Moldovan, product attributes can be included product complexity and price, which can be led to the success of new product (Moldovan et al. 2011). Other product attributes include the newness and usefulness of the product, product objectives and services, performance, complexity, and risk level.

In the research, it has been tried to study the effect of product attributes included newness and usefulness on word of mouth advertising. According to the results of researches conducted by Moldovan et al. (2011), the newness of the product increases consumer tendency to word of mouth advertising. The usefulness of the product also leads to word of mouth advertising. Various factors can affect on the effectiveness of advertising, which can be referred to consumer involvement. Consumer involvement is defined as perceived personal importance or interest related to product/service/ idea acquisition, usage, or withdrawal. As consumer involvement increases, consumers gain more motivation to pay attention, understand, and open a gap on the information that is important to purchase a product (Mowen et al. 2007). Therefore, products could be classified in two categories: low product involvement and high product involvement. In the research, our aim of products is low product involvement.

On the other hand, various factors affect on involvement, one of which is product attributes. Obviously, community members are the memberships of various groups. Members of these groups can have a close relationship with each other or be unfamiliar to each other. People who have a close relationship with each other and who are family members or close friends are called in-group people; other people outside this definition are called out-group people. Since, people tend to share their purchasing and consumption experience with others, they can affect on word of mouth advertising, introducing the product to others, encourage them to purchase, and/or avoid them to purchase. The research has also been trying to study whether people would prefer to share their information with in-group or out-group people.

Lam et al. (2009) conducted the research in this area. He studied cultural values according to the dimensions Hofstede (1980) pointed out. That research showed that individualism is effective on spreading word of mouth advertising. This observed in out-group people more than in-group people. People also placed more value on matriarchy and power distance. It is expected that they would spread positive word of mouth advertising within their group. Finally, they found that avoiding uncertainty has a negative correlation with in-group word of mouth advertising.

Therefore, the purpose of current research is to study the effective factors of product attributes on in-group and out-group word of mouth advertising among employees of Qazvin Glass Factory.

### 2. Literature review

Khabiri et al. (2013) studied the affect of four variables of trust, commitment, communication, and expertise on the relationship quality and the affect of the relationship quality on word of mouth communication among customers of private body building clubs. Results showed that four variables of trust, commitment, communication, and expertise had positive and significant impact on word of mouth communication among customers of the clubs. Fit indices also suggest that data were well fitted with the model.

Hasangholipour et al. (2013) theoretically and practically studied the factors predicting customer word of mouth in Airlines Corporation (case study: Iran Air Airline Corporation). Findings showed that satisfaction, trust, quality of the service, perceived value and loyalty were effective factors on the creation of positive word of mouth in Airline Corporations.

Zargham and Alaei (2010) studied to choose a proper form of internet advertising in the air transportation sector using an applied model (case study: Iran Air Airline Company (Homa)). Results showed that there is a significant relationship between internet advertising such as banner, pop-up, interstitial, skyscraper, super-text, email, and video advertising and customer purchase in Homa Airline Corporations. After application of exploratory data analysis based on one-sample ratio test according to results from sections 2 and 4 of the questionnaire), skyscraper internet advertising was known as the most desirable form of internet advertising in the Air Transportation Service.

Ranjbaran and Jalilvand (2010) studied E-word of mouth advertising in tourism management. They concluded that word of mouth advertising and interpersonal influences are as the main source of information when make decision about the purchase. Sources of internet word of mouth advertising play an important role in consumer decision-making process. When word of mouth advertising becomes digital, the large and transient nature of internet requires new was of capturing, analysis, interpretation, and management of online word of mouth advertising. Anonymous visitors who add their opinions in web pages quickly become opinion leaders of electronic age.

Mortazavi (2010) conducted a research concerning focus of control and word of mouth communication among consumers. They stated that word of mouth communication is one of the most important means of informal communication in the marketing among consumers about products, services, and organizations. Internal focus individual are more likely to involve in word of mouth communication and to share their information and experiences about products/services with others. However, external focus individual are less likely to involve in word of mouth advertising and they refuse to do so.

Martin and Lueg (2011) showed that the effect of face-to-face word of mouth advertising is stronger than the effect of electronic word of mouth advertising. Findings showed that using word of mouth advertising is heavily influenced by audience attitude toward the product. Once, individual have little knowledge about the product, information understood through the source have a large impact on individual attitude toward the product especially when the audience trust to a source of word of mouth is stronger. However, if the audience feels that he/she has substantial information about the product, the source of word of mouth communication will be of less value. He also said that positive word of mouth advertising directly affects on the audience attitude toward the product and their purchase intention.

Berger et al. (2010) researched the positive effects of using negative advertising. For negative and unknown product, giving people more knowledge about the product leads to increased possibility of purchasing such products.

Mohammadi (2002) studied a kind of network structure, which is created in the online environment. It was assumed that network structure in online environment is different from network structure in non-online network and real life. It was also stated that network structure is influenced by the time of innovation acceptance in electronic communication environment.

Goytte et al. (2010) stated that dissatisfied customer expresses his displeasure to nine people while satisfaction has just expressed to five people. Results showed that positive capacity

is the main factor creating word of mouth communication. She also stated that creating word of mouth advertising includes four dimensions: intensity, positive capacity, negative capacity, and the content of word of mouth advertising. Electronic word of mouth advertising can be used as a strategic tool for business managers.

Lam et al. (2009) studied the effects of cultural value on the formation of common communications in in-group and out-group word of mouth advertising. They used four dimensions of Hofstede to study cultural values. They knew individualism in spreading word of mouth advertising. They stated that this has been observed in out-group people more than in-group people have. Respondents also placed more value on matriarchy and power distance. It is expected that they would spread positive word of mouth advertising within their group. They found that avoiding uncertainty has a negative correlation with in-group word of mouth advertising.

East et al. (2008) conducted a research about measuring the impact of positive and negative word of mouth on brand purchase probability. They believed that positive word of mouth advertising has more effect than negative word of mouth advertising. Prior to this, they had studied the relatively incident of positive and negative word of mouth.

Matos and Rossi (2008) found that satisfied customers are not necessarily loyal customer. Damage caused by negative word of mouth advertising can lead customers to separate from the providers in the short-term experience of dissatisfied customers. Appropriate recommendations can lead to increased customer commitment to the organization. Managers can increase customer commitment by improvement and identifying common values, which exist between customers and companies. This can be as an incentive for supporting customers.

Grun et al. (2006) in the research found that exchange of knowledge and information, which occur between customers with customer, has a direct relationship with loyalty intentions. Electronic word of mouth advertising considerably affects on customer perceived overall value.

Kempf (2006) stated that women have more positive attitude toward word of mouth advertising than men have. However, both men and women can equally determine information after receiving the information of word of mouth advertising.

Maxham (2001) stated that improved services could affect on consumer perceptions. They measured satisfaction, purchase intention, and positive word of mouth in their research. They found that the improvement of various services affect on consumer attitude and behavior. Improvement of effective services can cause customer retention and customer loyalty. When improved services is considerably higher than medium level, it will be caused to positive word of mouth advertising.

According to the importance of in-group and out-group word of moth advertising and its effects on the amount of product sale in Qazvin Glass Factory. The research has studied the effect of newness of the product and the usefulness of the product on the creation of in-group and out-group word of mouth advertising and the amount of word of mouth advertising.

### 3. Methodology

In the research, product attributes such as the newness and the usefulness are independent variable; characteristics of group members such as being in-group and out-group as well as the amount of word of mouth advertising are considered as dependent variables.

According to stated variables and above mentioned the conceptual framework of the research is shown in figure 1.

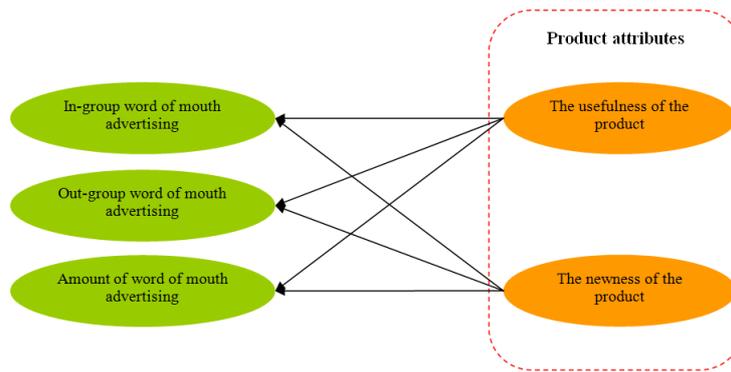


Figure 1. Conceptual framework of the research

### 3.1. Research method

Type of current study is applied research in terms of objective and descriptive-survey in terms of subject attributes and the time of data gathering. It has been used field method to gather data. One tool for data collection was questionnaire, which was personally distributed to the respondents. To reach necessary validity to use standard questionnaire, mentioned questionnaire was submitted to the supervisor professor and experts to obtain content-related and face validity after developing the questionnaire. After involving their opinions, the final questionnaire was developed and submitted to the customers. In the study, it has also been used Cronbach's Alpha to measure the reliability of the questionnaire. Given that, the amount of Cronbach's Alpha of all variables has been obtained higher than 0.7 so the questionnaire was of high and acceptable reliability. Statistical population of the research included all employees of Qazvin Glass Factory whom were 1210 people on that year. To

determine the sample size, Cochran formula is one of the most common and simplest methods. The sample size of the research included 292 people among employees of Qazvin Glass Factory using Cochran formula limited population). In the research, sampling method was simple random sampling.

## 4. Findings

### 4.1. Determine normality of population

To use statistical techniques, one must first determine the type of distribution of collected data. If distribution of collected data is normal, parametric tests can be used to test hypotheses. If distribution of collected data is non-normal, nonparametric tests can be used to test hypotheses. At this stage, we have been reviewed the results of Kolmogorov-Smirnov test conducted n each of the variables.

**Table 1.** Results of Kolmogorov-Smirnov test

Variable	Kolmogorov-Smirnov	Sig.
The newness of the product	1.045	0.211
The usefulness of the product	0.816	0.383
In-group word of mouth advertising	0.916	0.276
Out-group word of mouth advertising	0.885	0.312
The amount of word of mouth advertising	1.064	0.205

Ref: findings form SPSS output

As shown in table 1, since the significance level of Kolmogorov-Smirnov test is higher than 0.05 for all variables, the data can assumedly be normal. Therefore, null hypothesis of the research based on data normality is confirmed. For testing hypotheses, it can use parametric tests in spss<sub>16</sub> software. Therefore, it was used linear regression to test each hypothesis in the research.

### 4.2. Testing hypotheses

For testing hypotheses of the research, it was used linear regression according to normal distribution of data. According to the conceptual framework, six hypotheses have been tested in the study. The affects of the newness of the product and the usefulness of the product has been studied on in-group word of mouth advertising, out-group word of mouth advertising, and the amount of word of mouth advertising in the first three hypotheses and the next three hypotheses, respectively.

**Table 2.** Results of regression model fitness for hypotheses of the research

Hypothesis	Regression model	Sum of squares	df.	F	Sig.	Durbin Watson
1st	The newness of the product- in-group word of mouth advertising	140.791	290	390.358	0.000	1.937
2nd	The newness of the product- out-group word of mouth advertising	195.082	290	135.432	0.000	1.839
3rd	The newness of the product- the amount of word of mouth advertising	133.350	290	173.834	0.000	1.843
4th	The usefulness of the product- in-group word of mouth advertising	139.863	290	394.872	0.000	1.728
5th	The usefulness of the product- out-group word of mouth advertising	186.427	290	155.183	0.000	1.900
6th	The usefulness of the product- the amount of word of mouth advertising	119.772	290	226.415	0.000	1.816

As shown in table 2, the significance level is less than 0.05 for all hypotheses so regression model fitness for all hypotheses is confirmed. Given that the amount of F is significant, the

accuracy of using regression model is confirmed for all hypotheses.

**Table 3.** Summery results of linear regression test for testing hypotheses

Hypothesis		R <sup>2</sup>	Beta coefficient	Sig.	Conclusion
1st	The newness of the product- in-group word of mouth advertising	0.574	0.757	0.000	Confirmed
2nd	The newness of the product- out-group word of mouth advertising	0.318	0.564	0.000	Confirmed
3rd	The newness of the product- the amount of word of mouth advertising	0.375	0.612	0.000	Confirmed
4th	The usefulness of the product- in-group word of mouth advertising	0.577	0.759	0.000	Confirmed
5th	The usefulness of the product- out-group word of mouth advertising	0.349	0.590	0.000	Confirmed
6th	The usefulness of the product- the amount of word of mouth advertising	0.438	0.662	0.000	Confirmed

As shown in table 4, the significance level is less than 0.01 for all hypotheses. Therefore, null hypothesis is rejected and all hypotheses of the research are accepted at %99 confidence level. According to the results of the research, the newness of the product on in-group word of mouth advertising, the newness of the product on out-group word of mouth advertising, the newness of the product on the amount of word of mouth advertising. The usefulness of the product on in-group word of mouth advertising, the usefulness of the product on out-group word of mouth advertising, and the usefulness of the product on the amount of word of mouth advertising are confirmed with 0.757, 0.564, 0.612, 0.759, 0.590, 0.662 beta coefficient,

respectively.

#### 4.3. Study in-group and out-group word of mouth advertising

In this stage, we are trying to answer the question: is there a significant difference between in-group and out-group word of mouth advertising? According to the normality of variables of in-group and out-group word of mouth advertising (based on results of Kolmogorov-Smirnov test), it has been used two-sample t-test to answer the question, of which results are as follows:

**Table 4.** T-test for in-group and out-group word of mouth advertising

Variables	Number	Mean	Standard deviation	T statistics	df.	Sig.
In	292	3.60	1.05			
Out	292	3.37	0.99	-2.784	582	0.006

As shown in table 4, the amount of significance level of two-sample t-test was obtained for in-group and out-group word of mouth advertising. Since, the significance level of t-test is up to 0.006 and is less than the amount of acceptable error ( $\alpha = 0.05$ ), there is a significant difference between the mean of in-group and out-group word of mouth advertising. As shown in table 4, the mean difference was significant, the mean of in-group and out-group word of mouth advertising is 3.60 and 3.37, respectively, and the mean of in-group word of mouth advertising is higher than the mean of out-group word of mouth advertising. Therefore, it can be said that there is a significant difference between in-group and out-group word of mouth advertising; and the performance of in-group word of mouth advertising is higher than the mean of out-group word of mouth advertising.

## 5. Conclusion

The objective of the research was to study the effective factors of product attributes on in-group and out-group word of mouth advertising, in order which six hypotheses has been designed. Statistical population of the research included employees of Qazvin Glass Factory. It has been used simple random sampling method due to the high number of members of the studied population. The sample size has been obtained from 292 people based on Cochran formula. It has been used the questionnaire of Moldovan et al. (2011) and Lam et al. (2009). According to the normality of variables and independency of errors, it has been used univariate regression for testing hypotheses; and it has been used independent two-sample t-test to study in-group and out-group word of mouth advertising in Spss22 software. Results showed that both the newness and usefulness of the product variables have positive and significant effect on the creation of in-group and out-group word of mouth advertising and the amount of word of mouth advertising. In addition, results of two-sample t-test showed that the performance of in-group word of mouth advertising is higher than out-group word of mouth advertising.

Therefore, according to the research results:

Companies should look to identify strategies that will stimulate positive word of mouth advertising among the customers. Companies should also identify factors, which lead to negative word of mouth advertising and try to decrease their affects. In this way, it can increase the possibility of forming positive word of mouth advertising among the customers and encourage them more to speak about company services with their friends, relatives, and colleagues. In addition to the main services and improvement of equipments and facilities, creating superior value or more benefits for the customers by offering customized services; increasing working hours for responding to the customers; informing and accurately expressing the facilities, possibilities, and limitations; and providing various and ancillary services will lead to customer loyalty and differentiate the company from its competitors.

According to the results of the last three hypotheses of the research, it was showed that the usefulness of the product has positive and significant affect on the creation of in-group and out-group word of mouth advertising and the amount of word of mouth. Given that, the buyer is always looking to buy a product that can create an interest and benefit for him, meet his need, or give him benefit by its usage. Therefore, it is not possible except by providing a memorable experience through providing better and higher quality service. In addition, the more the speed of offering products, the variety of products, paying attention to the customer needs, and transaction security; surely the more affects on the creation of in-group and out-group word of mouth advertising and the amount of word of mouth. Furthermore, it is recommended to set up websites by the sellers for promoting the brand and to provide the possibility of word of mouth advertising for the consumers in ways such as giving comments or opinions in websites, providing awareness campaign through internet catalogs and banners. Spreading electronic word of mouth advertising via e-mail and message, and providing word of mouth advertising messages in which show the customer perceived high quality of the company products.

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## TO DESIGN THE FRAMEWORK OF PROFESSIONAL ETHICS WITH IRANIAN-ISLAMIC APPROACH FOR THE EMPLOYEES IN ZANJAN WATER AND WASTEWATER CORPORATION

<sup>a</sup>SOHEYLA ALAVI, <sup>b</sup>MEHDI REZAAE YAZDELI,  
<sup>c</sup>MOHAMMAD ALI BOLOUKI KOORANDEH, <sup>d</sup>SHEYDA  
 BORJIAN

<sup>a</sup>PhD Student in Governmental Management-Human Resources,  
 Department of Management, Tehran Central Branch, Islamic  
 Azad University, Tehran, Iran. Email:

<sup>b</sup>Social Security, Deputy of Economy and Planning Department,  
 Tehran, Iran.

<sup>c</sup>PhD Student in Governmental Management-Human Resources,  
 Department of Management, Tehran Central Branch, Islamic  
 Azad University, Tehran, Iran.

<sup>d</sup>PhD Student in Governmental Management-Human Resources,  
 Department of Management, Tehran Central Branch, Islamic  
 Azad University, Tehran, Iran.

Email: <sup>a</sup>so.alavi@chmail.ir, <sup>b</sup>rezaee.mehdi53@gmail.com,  
<sup>c</sup>mabolouki@yahoo.com, <sup>d</sup>sheyda.borjian@gmail.com

**Abstract.** Ethics includes Islamic transcendental teachings, which has had a profound and imperative role in the development and expansion of Islamic civilization. Professional ethics requires issues, with which can provide and maintain its realization context. In this case, professional ethics will appear and continue in a way that it should be. This research is a descriptive-survey research. The validity of the questionnaire has been obtained by the formal method. The reliability of the questionnaire has been obtained by the Cronbach's Alpha test. It has been made five hypothesis to examine variables (social responsibility, justice, trust, loyalty, sociability) of which four hypothesis has been confirmed and one hypothesis has been not supported. Results show that there is a significant relationship between sociability, justice, trust, and employee loyalty in Zanjan Water and Wastewater Corporation.

**Key words:** Professional Ethics, Social Responsibility, Trust, Justice, Sociability

### 1. Introduction

Ethics is the plural of mood and it has two meanings, in words. Some consider ethics as an inner force and nature that may have been only understandable by the foresight and non-appearance, compared to creation that is considered as a tangible form and is understandable by an eye-popping. Others know mood as a firm sensual characteristics which human promptly acts according to it (Sharifi, 2010).

The purpose of professional ethics reflects on the ethical dimension of issues and subjects that are related to specific jobs such as medical ethics, business ethics, etc. (Hosseini, 2011). Professional ethics, which has the meaning within strategic approach as ethical responsibilities of organization and enterprise toward direct and indirect environment, has taken many attentions of Iranian organizations in the recent decades. The dominance of professional ethics has many benefits for the organizations such as internal dimension and aspects of improving relations, increasing understanding atmosphere, reducing conflicts, increasing more commitment and responsibilities for employees, and reducing the costs of control. In addition, the dominance of professional ethics influences the organization from social responsibility aspect by increasing the legitimacy of organization and its actions, moral obligations given the importance of stakeholders, increasing revenue, profitability, and improving competitive advantage of organizational success (Beykzad et al. 2010). Professional ethics has organizational contexts as well as brings cross-organizational results and effects. Promote ethics in the enterprise and moral excellence of organizational culture not only creates a lively environment exposed to increased productivity, but also it plays an effective role in the society beyond the organization. Health and, beyond it, moral excellence of the society are influenced by the enterprises and its organizations (Qaramaleki, 2008). Ethics in all human societies get its base from school, ideology, and applicable value system of the society. Islam is among the schools in which ethics is treated as important and left memorial valuable assets of verse

and traditions, and historical examples.

Reviewing management literature in 19980-1990 indicates the influence of ethical issues and rules, social responsibilities, social thinking on the management of which scope is still under developing and expressing (Nadimi, 1998). Every person is responsible for the environment in which he live (work environment) in addition of his life. One should set his relationship with the environment according to his job so that he does well his main responsibility and duty toward others, at the same time, creating moral conscience. Applying right job ethics in the working environment attracts trust of others and causes more social and economical opportunities to be developed. Access to all these factors requires to respect the right of others and to perform job tasks as best as possible along with the use of moral conscience. Other importance of ethics review is that if moral values do not internalize in a society and its organizations, neither the law nor efforts and government policies nor other tools and mechanism will not have function and be efficient (Qorbazadeh and Kariman, 2009). Today, the most important variable in organization success is professional ethics. Professional ethics is of strong values and charges that comply with them play a role in the organizations and social norms. Professional ethics provides self-control and self-improve power for the person or for the organization. However, comply with professional ethics increases the ability of organizations in business and reduces the costs of society and organizations (Mohammadi and Golverdi, 2013).

### 2. Problem Statement

Professional ethics, which has the meaning within strategic approach as ethical responsibilities of organization and enterprise toward direct and indirect environment, has taken many attentions of Iranian organizations in the recent decades. One of the main concerns of efficient managers at different levels is how to provide appropriate opportunities for human factors working in all profession so that they can deal their tasks in their society and business with responsibility and commitment and comply with ethics principals governing their profession. Professional ethics is as a double-edge sword whose one-edge is threat. Weakness in the system of morality leads to reduce communications and increase damages in the organization; and management will rely more on retrospective control because people do not convey information to the management. In this case, the energy of organization is converted to the negative energy. In other words, organization power will be spend on rumor, gossip, and layoff instead of organizational goals. The other edge of the sword is opportunity. Professional ethics dramatically influences on activity and results of the organization. Professional ethics increases productivity, improves communications, and reduces risk degree because information flow easily facilitates and the manager can be informed before the event when professional ethics dominates in the organization. Therefore, the dominance of professional ethics in the organization is significantly able to assist the organization in order to reduce tensions, achieve successfully the efficiency goals, and make it responsive (Beykzad et al. 2010).

### 3. Importance Of Subject

As Islamic perspective, importance and necessity of professional ethics is the moral decay and breakdown of moral boundaries, in which case nothing will be left to be health and humanity collapses. This is of critical and special situation in the administration affairs. Because when a person moves out of individual privacy, he/she is linked to other human beings, and this link forms administrative, if good ethics not govern on human relationships, the tragedy will be multiplied. Therefore, the highest criterion in any administrative organization is to belong to human ethics.

Working is sweet and with job satisfaction and feeling of satisfied and self-actualization, on the one hand, and people consent and the work prosperity, on the other hand. Consequently, working leads to satisfaction of the creator, precipitation of blessings, development of human talents toward absolute perfection in the working field and acting based on the fundamentals of professional ethics. Lack of professional ethics is to eliminate the context and bed of human and society flourishing toward absolute perfection. Moral decays is to rise a sense of self-dissatisfaction, a sense of vanity, a sense of decline and destruction, the rise of which appears as anger, intolerance, abuse, boredom, disloyal, absenteeism, and psychosomatic disease. Professional ethics removes repetitive, boring, and tedious aspects of working and gives people a sense of excellence. The sense of excellence seriously affects on work-esteem and human relationships with others. By ethics to be broken, all privacies are breached. When privacies are breached, any evil can penetrate in the inside, outside, and relations. Imam Ali (AS) has said, "lest break the excellent moral, change it, and convert to bad moral" (Qaramaleki, 2009).

Today, many countries in the industrialized world have reached the maturity that disregard ethical issues and evade from responsibilities and social commitments leads to the loss of entity. Therefore, many successful countries feel the needs to develop ethical strategies. They have reached the belief that and ethics-based culture should penetrate in the organization. Thus, they have tried to give a special position to the researches about professional ethics (Amiri et al. 2010). Understanding our rich heritage in professional ethics can help us to encourage the development of this knowledge and show its way. Islamic ethics teachings are one of rich sources to understand professional ethics. Due to current poverty in the field of professional ethics in our country, we try to design a framework model of professional ethics with Iranian-Islamic approach in the research, which is one of the most important sources of ethics in Islam (Farahani, 2011).

#### 4. Literature Review

Ethics is included in sublime teachings of Islam that has had a dramatic and imperative role in the creation and development of Islamic civilization. To show the importance of ethics, it is enough to say that the Seal of Prophethood (Mohammad) communicated his mission statement to the world after his designation to the prophet position that was "to perfect moral standards." Since he says, "I have been designated as a prophet to perfect moral standards."

Of course, the prophetic ethics is the most effective means of Islam development after the Quran in Peninsula Arabia and the geography of the world. God says in the Quran about Prophet, "and most surely you conform (yourself) to sublime morality."

In other verse, God addresses the Seal of Prophethood as the prophet of mercy: "and we have not sent you but as a mercy to the worlds."

The important key of the progress and development of Islamic civilization after the miracle of Quran is prophetic ethics, which brings Islamic civilization to the glory as far as Muslims were placed at the height of cultural and civilization achievements in the fourth century. Prophet moral is sacred and divine ethics. Ethics philosophies have differentiated between sacred ethics and secular ethics. Sacred ethics is God-centered and perfectionist but secular ethics is human-centered and pragmatic. It can be noted the following items from the features of Islamic and prophetic ethics, of which increasing creation and development of Islamic civilization has resulted: protection of human dignity, justice-centered, meritocracy, the spirit of mercy and compassion, forgiveness, tolerance for oppositions, compliance with human right, and having moderation policy in manners and methods (Hedayati et al. 2011).

#### 5. Professional ethics

Professional ethics is to find an executive mechanism to change general ethical principles and theories to administrative and organizational environment that is highly monitor the existence needs and damages in the working and society environment. Professional ethics is a set of accepted ethical actions and reactions that are established for professional community by the organizations (Salamati, 2004).

Professional ethics can be considered as the application of ethical principles in life and professional relations. The main question of professional ethics can be stated in the manner that how do we behave in our professional and working relations to be adhered to professional ethics (Deilami, 2008)?

Professional ethics is a branch of applied ethics. There are both traditional and new approaches in professional ethics. The traditional approach is to turn the human resources management to professional ethics, which focuses on ethical responsibility of individuals in jobs, businesses, and occupations. The new approach, which has become common in recent decays, is the approach of strategic management toward professional ethics. In this approach, it is focused on the organization responsibility with system approach (Beykzad et al. 2010). As authors view, professional ethics is generally to apply normative ethical principles of a specific school and system to prevent and control an organization or enterprise based on existing and advanced damages, needs, and requirements (Mohammadi and Golverdi, 2013).

##### 5.1. The concept of professional ethics

Professional ethics is a branch of applied ethics that deals with ethical issues in business. Business owners have two expectations from ethics knowledge: systematically expressing ethical responsibilities in the business and accurately determining and effectively solving ethical problems in the business. Primarily, the concept of professional ethics was applied as working and jobs ethics. Today, some authors of professional ethics use its primary meaning to define it. Terms such as "professional ethics" or "work ethics" are used for professional ethics in Persian language. It has various definitions for professional ethics as following (Qaramaleki, 2008):

- a. Work ethics is mental and physical energy of individual or group to be committed to collective idea in order to obtain power and talent within the group and the individual to develop in any form;
- b. Professional ethics is a new branch of ethics that seeks to answer ethical issues of various professions; it is considered certain principles.
- c. Professional ethics deal with ethical issues, questions, principles, and values of a professional system; it monitor ethics in a professional environment;
- d. The purpose of professional ethics is a set of rules that individual must voluntary observe based on their voice of conscience and nature to perform professional work without having any external obligations or be subjected to legal penalties in case of violation;
- e. Personal ethics is a person's responsibility against his/her own behavior just as a human being. Job ethics is a person's responsibility against his/ her own professional and working behavior as the owner of professional or organizational position;
- f. The ethics includes a set of worth laws, behavior and treatment obligations, and instructions to implement them;
- g. Professional ethics studies ethical obligations in a profession and its ethical issue as a branch of ethics science. As a definition of profession, it is known as a certain activity that leads a person to be directed to a determined situation along with special ethics.

The definition of professional ethics is as follows:

1. Professional ethics is a common behavior among people of a

- profession;
2. Professional ethics is the management of human behavior and treatment when doing professional work;
  3. Professional ethics is a field of ethics science that studies job relations;
  4. Professional ethics is a set of rules that is primarily obtained from the nature of profession and job (Amiri et al. 2010).

### 5.2. Governing professional ethics

Governing professional ethics benefits more for the organization in terms of internal aspects such as improved relationships, increased atmosphere of understanding, reduced conflict, increased employee commitment and responsibility, and reduced costs of control. It can influence the organization in terms of social responsibility by the legitimacy of organization and its actions, ethics necessity given the importance of stakeholders, increased revenue and profitability, competitive advantage, and organizational success. Today, having professional ethics is introduced as a competitive advantage in the organization. Fred David believes that good ethics principles are preconditions of a good strategic management. Good ethics principles mean a good company. He believes that the growing belief toward adherence to ethics will lead to strategic advantage and will become more common among managers (Beykzadeh et al. 2010). Therefore, professional ethics has its own features and properties in every culture. For example, the privacy of individual is different between an east society and western society (Taqizadeh, 2009). Since Islamic Republic of Iran is an Islamic society, it is so important to recognize principles of professional ethics. According to the principles of professional ethics in Nahj al-Balagha as the second important Shiite books, one of the advantages of which is comprehensive and universality, it has been always given attention to morality and ethics that is worthy. In every research, it is necessary to review already done researches to achieve objectives of the research so we can use their scientific experience. Therefore, several researches are presented in this section.

Mahini (2007) in the research entitled "basics and patterns of professional ethics in Nahj al-Balagha" states:

The effect of Nahj al-Balagha on the development and evolution of Islamic civilization and culture as well as its importance in the promotion of professional ethics based on Islam makes necessary to study professional ethics and communicative behavior pattern introduced in the Nahj al-Balagha. Ultimate criterion of ethics in the Nahj al-Balagha is divine satisfaction; and respect for individual rights is operational basis of professional ethics in the Nahj al-Balagha.

Moarefi (2009) in the research entitled "study the ethos in Shiite thought based on verses of Quran and traditions of Nahj al-Balagha using content analysis method" studied the ethos in Quran and Nahj al-Balagha. Results indicate that Islam religion and Shi'ism focus on ethics and professional ethics. Substantial difference of the ethos between Islamic/Shiite thoughts and other perspectives is on attitudes and ideology. Ethics in Islamic and Shiite thoughts is founded based on unity principle, responsibility, human authority, and the effect of human moral thoughts and behavior on his life after death (visualize action).

### 5.3. Professional ethics in Islam

Behavioral patterns at the level of institutes and social organizations are unifying religious community. A general definition of ethics and communicative behavior patterns is responsibility for individual rights. Religious society involves many issues in terms of interaction of organizations and social institutes in them as well as individual communicative behavior. The issues arise from religious determination of such societies and they should be answered by religious determination. Ethics is organizing communicative behavior in terms of individual, organization, society, and international relations. Interpersonal and intra-personal communicative behavior in private life and

professional life is integrated and organized through ethics. However, communicative behavior of organization with the environment and the interaction of social institutes with each other consolidate based on ethics in both national and international level. To determine the functional components of professional ethics (Islamic), one can use strategic principles of professional ethics in Islam. The main strategic principles of Islam include genuine and unconditional respect for people, respect for human freedom, justice for humans, trusteeship in behavior and personal insight (Ameli, 2009).

Professional ethics in administrative system of the Islamic Republic of Iran should have Islamic identity. It should be formed based on Islamic ethics. Having Islamic identity of professional ethics in our country, it can be point out four reasons (Jaznee, 2003):

- a. In terms of cultural, due to dependence of the mass of our people to the belief system;
- b. In terms of religious, due to the inherent of ethics and religion in Islam context;
- c. Need dynamics in Islamic culture according to its exposure to the challenges of globalization;
- d. In terms of the system of government, oblige to religion-centered theocracy; in terms of law, adoption of Islamic law emphasized by the constitution in the Article VIII.

Islamic ethical system is so that it combines with professional ethics and is inseparable. Because, final criterion and ultimate human happiness is God in this system; and man is the center of ethical attention as a caliph and successor of God on earth. This means that human pleasure and serves him leads to God satisfaction and nearness to him (Qaramaleki, 2005).

It should be said about the latter that the ultimate criterion of ethics is omnibenevolent God's will. The most important strategic principles that can be the origins of forming functional components of professional ethics (Islamic) include: a) human dignity; b) individual liberty; c) social justice: put each thing in its proper place in terms of general concept; d) trusteeship in both bailment and trust-oriented insights. Amongst all, the fourth principle is the most important principle (Amiri et al. 2010).

### 5.4. Framework of professional ethics from the perspective of Islamic teachings

Professional ethics requires and ethical system. There are different ethical systems in the world. Some ethical systems are free of the religion and completely secular. Some other ethical systems are based on revelation and religious teachings. Islam is the religion, one of whose mission is ethics. Professional ethics obtain its ultimate criterion of ethics and strategic principles form the Quran and traditions due to Islamic identity (Qaramaleki, 2009). Therefore, professional ethics should be Islamic in addition of being professional. The purpose of being Islamic is to utilize very important sources of the Quran and traditions. Of course, this means that there is no need of other sources.

### 5.5. Responsibility

Human perfection relies on the perfection of his responsibility. Imam Ali (AS) determined the areas of responsibility much broader. He asked his agents and employees to be responsible for all works and actions as well as their relations (Seyed Razi, 2008).

Responsibility is the basis principle on professional ethics in such way that any kind of irresponsibility is to get out of the right direction and to walk in unrighteousness and obliquity. Human perfection relies on the perfection of his responsibility. Everyone who fails to take responsibility, deterioration will be more in his job. However, everyone who takes more responsibility, he will be perfect in terms of individual behavior and professional ethics (Delshad Tehrani, 2000). Imam Ali (AS)

emphasized more on responsibility and determined the areas of responsibility for his agents much broader. As illustrated in the sentence "Fear Allah in the matter of His creatures and His cities because you will be questioned even about lands and beasts" (Nahj al-Balagha, sermon 167), the scope of agent responsibility not only include people but also cities and beasts. As illustrated, Imam Ali (AS) asked his agents to be responsible for all actions and relations.

### 5.6. Justice

Justice means endurance and consistent in word. The concept calls for justice whatever is a source of moderation, balance, and endurance. Imam Ali (AS) define justice: justice puts everything in its place (Seyed Razi, 2008). This means that the right of everyone and everything will be given to him. Some schools of ethics philosophy consider justice as the ultimate criterion of ethics; some consider justice not as the ultimate criterion but strategic principles of professional ethics (Izadifard, 2007).

Justice attracts peoples' trust and the person can correctly do his task (Delshad Tehrani, 2000). Respect for justice and fairness in administrative relations and serving to people is a principle that administrative system goes out of human form without it; and it will be suffered of any corruption and depravity. The rule of justice on administrative system, honoring justice, protect the rights of others as our own right in arbitration position, respect for the equal right of the parties. In addition, give rights to others equal to our own rights are the most important issue that is to protect the health and strength of administrative system and the cause of heart transplant. Imam Ali (AS) said, "treat people with fairness to trust you" (Tuhaf al-Uqul, 49).

### 5.7. Loyalty

Loyalty is one of social values. It is of great importance in our life and relationship with people. Loyalty has been defined as honesty, trueness, integrity, sincerity, and being faithful in life and relations. In fact, loyalty can be defined as stability and stableness in relations, honesty in interactions, and act upon obligations. The purpose of loyalty to the organization is to employ all the employees' ability to achieve organizational targets, responsibility, eagerly do the work, doubled effort, coordination with changes, etc. There are various definitions for the loyalty (Mohammadi and Golverdi, 2013). H. Becker believes that:

"If a person refuses a job in order to maintain his/her current job having known better situation, higher wages, and more appropriate conditions of that job; it will considered as his/her loyalty to the organization."

Spiritual and emotional sense of belonging to the organization and be sensitive to it is what represents the organization and it is intended as belonging to it (Amiran, 2005). Interested and loyal employees have a higher job performance; they tend to remain in the organization more; they have less absenteeism; they have higher work motivation; and they are more accompanied by changes in the organization. Imam Ali (AS) says about the importance of loyalty "honor covenant particularly with loyal ones" (Seyed Razi, Nahj al-Balagha, sermon 155).

Covenant amongst all nations (Muslim and non-Muslim) is revered and scared. In Islam, it has been too much attention given to fulfill the covenant (Farahani, 2011).

Loyal employee to the organization and their long-term staying in the organization strengthens the human resources department of the organization and brings resources of experiences for the organization. Employees who are loyal to the organization; work for the organization over the years; are well familiar with strategies and mission of the organization; know how they should take step toward the interest of organization, they do not need training, justification and such issues. In contrast, continuous changes of the employees and lack of loyalty to the

organization causes high costs to the organization. In fact, some kind of duplication occurs in the organization and resources of the organization will be wasted.

Loyal employee to the organization is responsible towards organization goals. They work toward these goals and implement managers' decisions. A person, who is loyal to the organization, accepts faster and more pleasing changes in the organization, adapts himself with them because he knows himself as a part of the organization, and understands policies of the organization (Farahani and Ahrafi, 2014).

### 5.8. Sociability

Individual socialization is the process through which employees identify organizational values and learn organization expectations about behaviors related to their jobs and required knowledge to play their role as an effective member. In fact, development and increased level of abilities and organizing human resources of any organization to achieve organizational goals has outlined in vision and intellectual level of human resources management. This level of management significantly contributes to the organization victory and defeat. Human resources management is subject to policies, procedures, and systems that influence on employee behavior, thoughts, and performance (Noe, 2000). There has been provided different classification for tasks of human resources management but in general we can say that the main tasks and activities of human resources management are achievable in five processes (Dolan and Scheler, 2010; Dessler, 2010; Seyed Javadin, 2006). If patterns, practices, policies, and procedures relating to employees of the organization are aligned with each other, they will significantly contribute in achieving organizational goals and strategic plans and it will be more likely to achieve organizational success. Two main tasks of human resources management are the knowledge of employees with the organization as a part of recruitment process and their deployment as well as self-assessment as a part of performance evaluation. At arrival at the organization, individual may have little knowledge and understanding to the organization, what they might do in the organization, and various processes to which are given importance in the organization. In the process of personnel recruitment and selection, it is very rare to select candidates who are aware of values, norms, behavioral patterns of the organization, goals, methods of working, and current rules and regulations of the organization (Dolan and Scheler, 2010). Employees little knowledge about the organization causes various problems in the type of and how the assessment of organization (Saks, 2006). Therefore, employees will experience conflict in terms of criteria, based on which they must be assessed, and expectations which they are functionally expected. Inevitably, they may use their personal impressions and/or false information, which others may be provided them with, to fill the vacuum resulting from lack of information in the organization. Therefore, organization should familiarize staffs with new social and working environment. In addition, understanding and support from the managers and supervisor in the organization can seriously reduce employee errors and mistakes within the organization. This causes employee satisfaction and higher self-efficacy in a progressive cycle.

### 6 Trust

Trust is a positive expectation which individuals are expected to not act as an opportunistic during their speech and behavior. In the study of Islamic sources, it has been used terms such as reliable, trustworthy, reliance, inclination, and their derivatives with some differences in the concept of trust. However, reliable, secure, and inclination indicate a certain concept of trust. That is, reliable and secure are used when it is subjected to rely on someone or something with calm and quiet heart (Skandari and Mousavi, 2011). While in a position of trust, it may be to rely on another person combined with a degree of uncertainty and risk taking (Tavakoli, 2000). Generally, we can consider trust as relying on God, ourselves, others, and nature.

Trust creating is an important and heavy duty for managers and leadership of the society so it needs comprehensive knowledge to have a sustainable and durable result. The concept of trust has a management application, which includes the right application of responsibility, independence, strength in the treaties and social contracting, post and position to serve the community, and matching words with actions (Motahari, 2010).

### 6.1 The role of religious beliefs in professional ethics

In the monotheistic thoughts of Imam Ali (AS), faith in the reality of existence and religious beliefs plays a fundamental role in the term of professional ethics. Hence, Imam Ali (AS) emphasizes on to remember God and resurrection in his governmental orders and administrative guidelines. He calls agents and staffs of his administration system to adhere to professional ethics given up real ubiquitous and observer and remembering a detailed audit of God. Those who faith in almighty God and see himself in the presence of God, they undoubtedly adhere to ethical customs and human behavior. Those who believes in the resurrection and knows precise calculations of God governing on his actions and behavior, they undoubtedly pay careful attention to what God offers because they know the audit of that world far more difficult than the audit of universe (Delshad Tehrani, 2000).

Religious beliefs affect on the enhancement of professional ethics in two ways. On one hand, when people have faith in the resurrection and the rest of the world, they do not need to gain a position and opportunity for themselves in this mortal world with deception, betrayal, cruelty, arrogance, etc.; then they leave the world and go to the other world. On the other hand, those who believe in God and consider the presence and supervision of God on their actions and behavior, they do not commit a sin before the presence of God; they are humble, patient, good-natured, etc. in their responsibilities; these are the foundations for the creation of professional ethics (Hosseini, 2011).

### 6.2. The importance of ethics in Islamic tradition

Professional ethics is not an abstract and celestial phenomenon but a real issue. Naturally, a real good infrastructure and provided backgrounds and necessary conditions can form it. Professional ethics requires actions which provide and maintain the context of its realization. Undoubtedly, professional ethics does not mean without necessary arrangements. These arrangements are both material and spiritual; these are both individual and social; these should be considered both form the top and form the bottom; these require both structural changes and cultural changes. In the other words, it should be provided structure and relationships in which all administrative forces are placed in proper position based on meritocracy. Therefore, their talent will be properly flourished, their abilities will be well appeared, they will serve in an environment full of job security and peace, they will fully secured, and everything will proceed in the legal-oriented relationships. In this case, professional ethics will appear and sustain in a way that it should be.

Professional ethics has been pursued with extraordinary importance in the traditions which have been quoted as behalf of the Prophet as well as other infallible leaders. In the following, some examples of meaningful traditions are mentioned. In a famous tradition of the Prophet (PBUH), we read:

"I have been designated as a prophet to perfect moral standards."

The purpose of "I" which is for restriction shows that all objectives of Prophet Mission are summarized in the perfection of human moral.

In other tradition of Imam Ali (AS), we read:

"Even if we don not have hope of Paradise, fear of Fire, and waiting for reward or punishment, it is proper to follow the moral characters, for these are of things that show the way of success."

It is sufficient to say that Quran said about the expression of the dignity of the Prophet (SAW):

"And indeed, you are of a great moral character" (Al-Qalam, 4).

### 6.3. The ultimate criterion of professional ethics in Islam

The ultimate criterion of professional ethics is a matter that will be taken as argument perfection in order to justify and prove all ethical recommendations and it does not need to justify and prove, as it will also be taken as the last goal and ideal of ethical behavior. Philosophers of ethics are much debated about the ultimate criterion of ethics. According to Islamic ethical system, the ultimate criterion of ethics is God and any behavior that is proximate to him is a virtue. The ultimate goal is proximate to him; such criterion provides goodness of action as well as ensures goodness of the subject (Qaramaleki, 2009).

### 6.4. Neglect the factors affecting professional ethics

In the knowledge of management, it is clear that environmental factors outside the organization particularly the factors of global environment are less accessible for the organization and the possibility of influencing or controlling these factors are almost impossible. However, they are not missed in the analysis of the internal affairs of the organization. The least benefit of understanding these factors are that they will be made us more realistic and thus more successful inn obtaining organizational strategy and policy. In the field of professional ethics and at least in the explanation and analysis of ethical dilemmas of the organization, it should not be ignored organizational and environmental factors. The negligence of these factors in the analysis and explanation of ethical dilemmas causes are suffered us from reductionism and non-realism that will not have result but failure.

Pennino (2004) divide the factors affecting on professional ethics into three aspects:

1. Individual aspect: means that individual features and properties, religious values, personal criteria, family factors, beliefs and character are the factors affecting professional ethics. Absolutely, a person who lacks good individual moral competency, he/she will also not benefit from appropriate standards of professional ethics.
2. Organizational aspect: factors such as leadership, management, relationship with coworkers, relationship with subordinates and elites, reward and punishment system, coworker expectations, regulations and procedures, organizational atmosphere and environment are included in this area. Obviously, undesirability of such factors will threaten professional ethics and vice versa.
3. Environmental aspect: economical, social, cultural, and political factors as well as other organizations and competitive factors among them are the factors affecting professional ethics. Furthermore, lack of facilities and working tools, inappropriate tools, poor working environment, workload in excess of the employee ability, busy office environment, and legal breaches can provoke moral dilemma. Economical instability, political instability, cultural-historical chronic pains such as despotism, which is seriously incompatible with the culture of collaboration and teamwork. Social false teachings such as escape responsibility and knowing laziness at work as a type of sleight, unequal status of global competition, which is threatening business ethics. In addition, other such factors are undoubtedly affect on ethical status of the organization (Amiri et al. 2010).

### 7. Hypothesis

1. Social responsibility has a positive and significant effect on employee performance.
2. Trust has a positive and significant effect on employee performance.

3. Sociability has a positive and significant effect on employee performance.
4. Justice has a positive and significant effect on employee performance.
5. Loyalty has a positive and significant effect on employee performance.

## 8. Conceptual Framework of The Research

Conceptual framework is a fundamental on which all research is

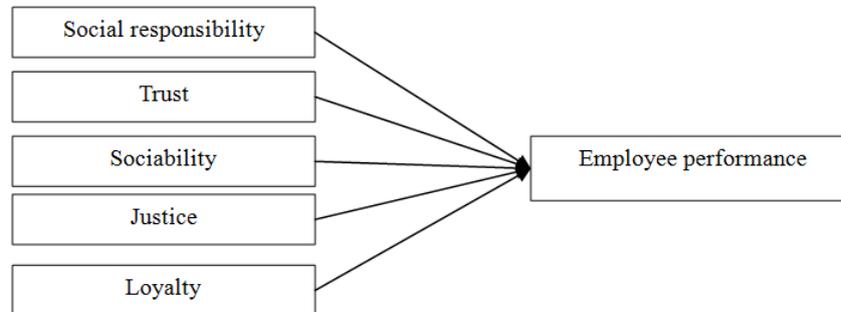


Figure-1: Conceptual framework of the research

## 9. Methodology

Generally, it can be said that this study is a field research which has been conducted by the questionnaire. The study is descriptive-survey research because the tool of data gathering has been distributed and gathered among the population. In the research, it has been studied the relationships between variables through regression analysis so descriptive-survey research is of correlation type. However, the study is applied research in terms of research goal.

### 9.1. Statistical population, sampling, and method of sampling

Statistical population includes managers and employees in Zanjan Water and Wastewater Corporation. Statistical sample has been selected among managers and employees through random sampling method.

### 9.2. Research tool

In the research, it has been used standard questionnaire to set the questions which has been included 32 items and designed in two parts for the respondents to understand more. First part includes individual features of the respondents such as gender, age, history, and education. Second part has been provided in order to study other hypothesis.

Questions of the questionnaire have been designed as closed questions. It has been used five-point Likert scale for variables. It was used items 1-4 to study the variable of social responsibility from standard research of Bruno et al. (2009), items 5-9 to study the variable of trust from standard research of Ferda (2003), items 10-13 to study the variable of justice from standard research of Chong (2015), items 14-17 to study the variable if loyalty from standard research of Susan (2015), items

18-28 to study the variable of sociability from standard research of Beykzad (2005), and items 29-32 to study the variable of employee performance from standard research of Ferda (2003).

### 9.3. Validity and reliability of the research

After a preliminary study on the subject, it has been studied to review research conducted in this fields and their results in order to achieve required validity and credibility in the design and use of questionnaire. Then, the questionnaire was prepared and proposed questionnaire has submitted to the relevant professors and experts. After involvement of their corrective comments, the final questionnaire was developed and it has distributed among managers and employees in Zanjan Water and Wastewater Corporation. Cronbach's Alpha of all variables and overall Cronbach's Alpha was higher than 0.7 that indicates high reliability of the questionnaire.

### 9.4. Data analysis

It was used SPSS software, descriptive statistics, and inferential statistics to analyze collected data.

## 10. Results

In this part of research, answers provided by the population were analyzed using linear regression test to design the framework of employee professional ethics with Iranian-Islamic approach in Zanjan Water and Wastewater Corporation given the normal distribution of population according to Kolmogorov-Smirnov test. Table 1 shows the results of Kolmogorov-Smirnov test. As shown in Table 1, significance level of all variables is higher than 0.05 so null hypotheses (normal distribution of data) is confirmed.

Table 1: Results of Kolmogorov-Smirnov test

	Social responsibility	Trust	Justice	Loyalty	Sociability	Employee performance
Number	80	80	80	80	80	80
Kolmogorov-Smirnov	0.890	1.187	0.772	1.294	0.909	0.902
Sig.	0.404	0.120	0.675	0.070	0.380	0.390

Therefore, linear regression was used for hypothesis test given the normal distribution of data. For using regression model, it is necessary to test preconditions of using it. In this regard, Durbin-

Watson, co-linearity, and normality of errors tests was done. Results show that all preconditions of using regression are established.

Table 2: Results of regression model fitness for hypotheses

Hypothesis	Regression model	R <sup>2</sup>	Sum of squares	df.	F	Sig.
1st	Effect of social responsibilities on employee performance	0.024	62.968	79	1.933	0.168
2nd	Effect of trust on employee performance	0.207	62.968	79	20.372	0.000
3rd	Effect of sociability on employee performance	0.517	62.968	79	83.568	0.000
4th	Effect of justice on employee performance	0.312	62.968	79	35.360	0.000
5th	Effect of trust on employee performance	0.362	62.968	79	44.199	0.000

As shown in table 2, significance level of all hypotheses is less than 0.5 but the first hypothesis so regression model fitness is confirmed for them. Since, the amount of F is significant, the correctness of using regression model is confirmed for all

hypotheses but the first hypothesis. Thus, effect of social responsibility on employee performance is not supported given the confirmation of null hypothesis.

Table3: Results of linear regression test for hypotheses test

Hypothesis	Regression model	Beta coefficient	Sig.	Result
1st	Effect of social responsibilities on employee performance	0.140	0.168	Not supported
2nd	Effect of trust on employee performance	0.455	0.000	Confirmed
3rd	Effect of sociability on employee performance	0.719	0.000	Confirmed
4th	Effect of justice on employee performance	0.559	0.000	Confirmed
5th	Effect of trust on employee performance	0.601	0.000	Confirmed

As shown in table 3, significance level of all hypotheses is less than 0.05 but the first hypothesis. Thus, null hypothesis is not supported and all hypotheses of the research are accepted with %99 confidence level but the first hypothesis. According to the results, the effect of social responsibility on employee performance was not accepted. The effect of trust on employee performance is confirmed with 0.455 impact factor (Beta). Therefore, trust can predict and explain %20.7 of employee performance. The effect of sociability on employee performance is confirmed with 0.719 impact factor (Beta). Therefore, sociability can predict and explain %51.7 of employee performance. However, the effect of justice and loyalty on employee performance is confirmed with 0.559 and 0.601 impact factor (Beta), respectively. Therefore, justice and loyalty can predict and explain %31.2 and %36.2 of employee performance, respectively.

## 11. Discussion and Conclusion

Islam is a great source of teachings with help of which the organization can provide a context for individual moral growth because ethics is an internal and infrastructure matter. The aim must be develop people who can face problems and solve them with creative thoughts. As people can communicate well with each other and remove problems through using collective knowledge and generating new ideas. One of the necessary conditions for the emergence of new ideas is the existence of peace within the environment of organization. By increasing ethical deposit, it can provide conditions for the formation of a relaxed environment accompanied with ethics in the organization and community and become closer to determined goals. Components of professional ethics such as responsibility, justice, sociability, and trust can help organization to achieve required dynamic and growth in the field of ethics and organizational internal cooperation. However, they can help organization to do assigned duties toward predetermined goals of the organization with a sense of belonging, loyalty, and participation in decision-making and to act as an important arm of higher level of the organization.

Professional ethics is necessary in the organization so that the organization does not violate society, on the one hand, and guarantee its long-term interest with its logical and wise

decision-making, on the other hand. In confronting with the concept of professional ethics, something must be considered that professional ethics includes personal ethics and job ethics but it goes beyond and it is as a legal collection supervisor in the organization.

According to the results of testing hypotheses, components of professional ethics including trust, loyalty, sociability, and justice affect on employee performance in Zanzan Water and Wastewater Corporation. To promote professional ethics in order to improve employee performance in Zanzan Water and Wastewater Corporation, following recommendations are provided:

- Pay attention to sociability as an advantage of professional ethics in business environment
- Strengthen ethical atmosphere of the organization based on trust in the workplace and foster a sense of belonging, commitment, and loyalty to the organization
- Respect for ethical principles in payments, fairness, and consistency in performance evaluation and reward/punishment system by modifying remuneration with providing explicit and clear criteria
- Employee loyalty in the organization, which leads to customer satisfaction, and loyalty to the organization that leads to profitability and improvement in organizational performance.
- Pay attention to the needs of employees, organizational justice, interactions between managers and employees, creating a spiritual environment in the organization, providing job security, job assignment based on responsibility in the organization, which causes the organization to be welcomed, by the customers and effects on the improvement of employee performance.

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## THE ROLE OF CULTURE IN INCREASING THE INTERNATIONAL MARKETING SHARE

<sup>a</sup>HASSAN ESMAILPUR, <sup>b</sup>FAHIMEH JABBARI

<sup>a</sup>Faculty member school of business Management, Islamic Azad University Central Tehran Branch

<sup>b</sup>Faculty member school of business Management, Islamic Azad University Central Tehran Branch

Email: <sup>a</sup>an.esmailpohasur.kshti@gmail.com,

<sup>b</sup>ostadmis@yahoo.com

**Abstract.** The present study has paid to investigate the role of culture in the field of increasing the international marketing share. The culture has an influential and changeable impact on each of the national and international market environments. The global marketing managers must recognize the impact of culture and be prepared to respond to it and otherwise by its change to coordinate with it and coordinates their cultural products based on characteristics of the target population. The cultural international marketing managers plays an important role and even leadership in affecting cultural changes around the world. The statistical population of the present study consists of Qazvin province manufacturing firms that among these companies, about 220 samples were selected by random sampling.

**Keywords:** Culture, International marketing, Manufacturing companies.

### 1 Introduction

The sale market globalization and how this process is effective in forming the global people cultural characteristics, is considered as the most important critical issues facing the international marketing managers. The powerful forces such as capitalism, global shipping, communications, sales and promotions and internationalize of countries is very effective in the removing of borders limit among the culture and economy of countries and in the view of some people, it also has significant impact to speed up the identical culture create in the global consumer (Babaei Zakliki, 2008, 67).

By considering that the most of the world countries are almost multicultural and growing rapidly, but even in the relatively homogeneous countries, the individuals are thinking differently some extent about understanding, respect and practical to cultural norms. Thus, a correct understanding of culture is recognized as an essential element in the development of effective marketing strategies and marketing superior functions (Cutler, 2000, 50).

In this study, we introduce the culture and then have examined the theories of globalization and the culture impact on international marketing and thus to investigate the role of culture in international marketing and international marketing characteristics.

### 2 Problem statement

Today's world is found the same as village, which its integrity market has spread across the continent. The deliberate and scientific knowledge with the various markets and capabilities and shortcomings of each firm is required to self-knowledge. It must start to move from its knowledge point and reach to knowledge and understanding of customers' obvious and hidden needs. It should be understand that we are in what situation and how to move towards the excellence path.

One of the products that can be entered through of it in addition to protect of the identity at the global level, is the marketing culture which has transformed their culture and national identity to others and promotes the target population cultural needs, so that this marketing has different aspects of domestic and international marketing and it is exchanged a huge part of the material and spiritual cultural products.

This exchange is internal and for cultural enrichment and respond to domestic needs is made and to be exchange, because

the television programs, music and movies and domestic cultural products is exchanged at the international level, since that handicrafts, tourism and visual and audio products that are produced with interdisciplinary look.

In marketing, we must be obtain an accurate recognition of the product to delivery place in order to achieve the more success in marketing issue.

In an article, the export processing region performance of North Asia can be compared in three country of India, Sri Lanka and Bangladesh, which in this study the factors such as: Location of areas, quality of infrastructure, quality of governance, concessions policy and the area special characteristics has a direct emphasis on the success of these areas in three countries.

The mentioned factors analysis in the form of econometric models using descriptive-hybrid statistics of three countries were conducted at two national and regional level.

In an article, the impact of trade liberalization on the export growth can be reviewed for the examples of developing countries. In an article, the impact of export processing can be evaluated in unemployment structure of Harris's model. His purpose in this article is to mitigate the destructive effects of the export processing region in the host country.

Khadijeh Karimi Amiri (2016), in her thesis in a research entitled of "Evaluation of the potential and actual capacities of Iran's free trade zones to fulfill the strategy and export promotion" has been conducted at Tehran University (2015).

Kazem Vafadari (2015) in his thesis in a research entitled of "Evaluation of the role of free trade-industrial zones in the field of non-oil export promotion has been conducted at Imam Sadiq University. Seyyed Mehdi Hosseini (2015) in his thesis in a research entitled of "Evaluation of Iran's free trade zones performance on the basis of cost-benefit analysis in case study of Chabahar at Tarbiat Modares University.

### 2.1 Concepts

Market is referred to a set of potential and actual buyers for a product or service (Cutler, 2000: 42). From the history perspective, market implies to a place that buyers and sellers to exchange goods or services refer to it. But economists are referred the market as a set of buyers and sellers who to buy and sell a particular product or service. From the marketing perspective, the market is formed a set of buyers. At the same time, the word of market sometimes refers to set except of the customers or buyers, such as labor market (Cutler, 2006: 50).

The market consists of all potential customers who have common needs and desires and to meet their needs and demands have tendency towards of the transaction and have the ability to do this work (Cutler, 2007: 50).

Kind of the market:

- Perfect competition: A status of the market with many number of seller or service provider that each one can influence on the prices.
- Perfect monopoly: A status of the market that provide only a manufacturer or service provider a product or service.
- Competitive monopoly: (Multilateral): In this status, several sellers or provider of goods and services may be exist (Babaei Zakliki, 2008: 58).

The word of market is reminded a busy street full of buyers and sellers. But accurately, the market defines as a place where a group of actual and potential buyers of a product to be exist. The market size depends on the number of those who said they need

and their need amount and buyers ability for the transaction. The marketing means to manage and expand of the market in order to meet the needs of buyers and identify of potential needs. America Marketing Association also is known the marketing as a process involves planning and realization of an idea, advertising and the distribution of goods, services and thinking to exchange, so that using of it can be satisfy individual and organizational objectives (Esmailipoor, 2015)

Marketing activities can be regarded respectively as product manufacture, market research, communication, distribution, pricing and services provide. But the main philosophy of marketing management is based on four underlying factors that are known as four *p* (Product, price, promotion, place). Product specifications, determined price for it, time and place appropriate site for product supply and the encouraging factors such as the advertising and informing are constituent of marketing mix. But about technology marketing, these factors are somewhat limited.

The distribution network and encouraging factors for informing and infrastructure are summarized. The price determination has different base and technology specifications is not completely in the buyer hand. The market technology by creating appropriate space for informing and completing information bank, makes the market virtual environment and by facilitating to create the relationship between supply and demand to make easier the marketing. Philip Kotler says that the marketing is an art and science to identify, creation and value provide in order to satisfy the needs of the target market, for achieve to profit. The marketing identifies unfulfilled desires and needs. Moreover, defining and estimating the size of a defined market, its profitability level is also measured. In other words, the marketing identifies the market segments as the most appropriate market segment for the company and specifies that the company has the ability and possibility of services provide to them and also it introduces the most suitable of products and services required of its segment (Babaei Zakliki, 2008: 75).

The international marketing is implementing one or more cases of the marketing activities from one side to the other side of national borders of a country. In other words, it is regarded as the planning and execution all of marketing activities in many countries (Esmailipoor, 2015: 14).

**Domestic Marketing Management:** It is the controllable factors management in the external environment of uncontrollable which is limited by geographical and political boundaries of a country.

**International Marketing management:** It is included the activity in several foreign market and in these markets not only the uncontrollable factors are vary from country to another country but also there is a strong possibility that controllable factors are also vary from market to another market (Esmailipoor, 2015: 15).

International marketing is also included the production operations and sale of goods and services in more than one country, without any goods to pass from the main borders of a country. For example, Ford Company which its original location is in the US is also exported the produced cars in Germany to other countries. For this reason, sometimes international marketing is also regarded to multinational marketing. It should be explained that the concept, stages and principles of marketing has standard aspect and in all markets and countries is applicable. Thus, the distinction between international marketing and domestic marketing is related to their activities (Babaei Zakliki, 2008: 4-3).

## 2.2 Internationalization

Internationalization or in other words, internationalize the activities has studied from the various aspects. This word refers to the different components in the organization as strategy,

organizational structure, products, such and like this, as well as internationalize implies as the process engaging in international operations. Internationalization or in other words, internationalize the activities.

Kalof and Beamish are stated that internationalization process means to coincide process of the companies' operations (such as strategy, structure, resources ...) with the international environment, in other words, in fact, internationalize of activities is considered as a dynamic process.

The benefits entering to the global market: 1. Technology progress; 2. Trade liberalization; 3. Institutions and structures changes; 4. Ideology agreement and global consensus and cultural developments; 5. Investment; 6. Industry; 7. Information technology; 8. Consumers seeking to cheaper and better goods; 9. Specialization of tasks; 10. Profitability; 11. Productivity increase, efficiency and rationalization of production.

## 2.3 The importance of international marketing

Today, no nation cannot live in complete separation from other countries. Economic resources, technology and individual living standards of a country depends relative on the economy of other countries which by the complex flow of goods, services, capital and technology, are related together. The countries through the international exchanges, increase their production levels and acquire more profit.

The price difference or because of the difference in terms of supply or production facilities or difference in terms of demand or consumption patterns or a combination of them. Differences in supply conditions, may be due to differences in natural resources, performance, skill, levels of production technology, and a lot of factors of production and so on. However, the difference in cost or supply conditions, the price difference, but the difference in terms of demand factor alone mainly by the level of income and consumption pattern of different countries of the Ygyrd, make a difference in prices as the difference supply has an effect.

So, through the import they can earn the goods that they are not able to produce and through the export, they send the surplus manufacturing goods in terms of their consumption to other countries. Although a country may has different production factors and can produce a variety of goods, but it will not be able to produce them with the same price. The primary cause of international exchanges, is in the price differences of countries' goods and services. The price difference is because of the difference in terms of supply or production facilities or difference in terms of demand or consumption patterns or a combination of them. Differences in supply conditions, may be due to differences in natural resources, efficiency, work skill, levels of production technology, and frequency of production factors and so on. However, the difference in cost or supply conditions, is not only considered as the factor of price difference, but also the difference in demand conditions which is formed mainly by income level and consumption pattern of different countries, that in creating of the price difference impacts on the supply difference size.

Every country by beginning of international exchange can apply their production factors to produce the products that have more efficient and exchange them with the products of other countries. International exchanges is underlying of international expertise development. Financial institutions with access to foreign markets through exports, has greater growth and thereby to offer their products with better quality to domestic and foreign markets and obtain the higher profits. The tendency to follow towards of the industrial investments, the necessity of economic growth, excellence motivation, and reputation in the business arena, the emphasis on improving efficiency and profitability, domestic markets saturation, mass production policy and the need for foreign exchange, are including the

factors that more reveal the necessity and importance of international marketing.

## 2.4 Marketing Principles

1. Create value for the customer: It means high value for the customer compared to other competitors, which its common methods are as follow: A) Product improve, B) Price reduction.
2. Create competitive advantage: The amount of organization offers compared to competitors in view of customers that can include 4p
3. Focus: Focus and attention to the needs, wants and tastes of the customers.

## 2.5 Culture

Culture is a set of beliefs and behaviors of human groups. Moein Persian dictionary defines culture composed of two words of *Far* and *Hang* which means the literature, education, knowledge, science, wisdom and customs. Culture is derived from biological factors, environmental, psychological and human history.

With regard to set of traditions and complexities of human relationships, even simple things that human like animal needs to them, is formed in the form of cultural patterns. The culture is different ways of life or life plan a group of people. For example, a Japanese is representative of a nation or a society. A Japanese person can be observed directly, but Japanese culture is an abstract of observed rules or regular trends which exists in the ways of life of these people. Culture is as follow: As what the people as members of a society think, acts. In the other words, thoughts, deeds and moral and material assets of a people or community (Esmaeilpoor, 2015: 81).

Cultural exchange is voluntarily transferring cultural meanings and sometimes with cultural programming, as each cultural system takes elements from other cultures. This exchange is done in areas that each cultural system permits it. This cultural transmission is bilateral; it means that values and norms are exchanged.

### 2.5.1 Cultural Marketing

Now with regard to the offered concepts of marketing and culture, we have paid to extract cultural marketing definition

- To set of human activities, cultural, planned, directed to meet the community cultural needs which is conducted by providing cultural goods or services, is called cultural marketing.
- Cultural marketing is a process in line with predict the community cultural needs and meet the needs through cultural exchanges.
- Set of activities that will be lead to customer's attention to the provision of services or cultural goods.
- Organized effort to predict the community cultural needs and meet those needs.

### 2.5.2 Cultural Marketing Management

The process of planning, organizing, leading of human force and resources to coordinate and the favorable control of supply flow and goods and cultural service demand is called " Cultural marketing management".

In fact, cultural marketing management refers to analysis, planning, implementation and monitoring of programs that are aimed creating a desirable level of cultural exchanges. The cultural marketing management predicts a managerial process which determines the customer satisfaction continually and effectively during a given time.

## 2.5.3 International Marketing Culture

International marketing, in its simplest level, is a process in which a business firm must make decisions about their marketing mix beyond the borders of its country. The sophisticated level, is including create of production unit and coordinate the company marketing strategy around the world (Doole and Lowe, 2004).

According to another definition, international marketing is as follow to perform of business activities to send of goods and services of a company to customers or consumers in more than one country, in order to make a profit (Pervez, 2005: 6).

The stages and principles of marketing have the standard and public aspects and in all markets and countries are applicable. The only distinguish of domestic marketing and international marketing is in their activity field.

This important difference creates new discussion of international marketing which among the considerable issues related to it, can be implied to awareness of the other nation (s), the adoption of appropriate strategies to enter the countries and different markets and perform specific actions in markets that for foreigners somewhat is associated with lower confidence and higher risks (Babaei Zakliki, 2008: 4).

## 2.6 The kinds of organizational culture:

The relationship pattern of culture with environment and the organization strategy: Daniel Denison has provided a model which on one hand, the relationship between environmental needs and emphasize of the organization strategic and on the other hand shows the type of organizational culture consistent with them.

Dennis pattern has formed of a two-dimensional matrix that one dimension of it shows the change degree or environmental sustainability and another one dimension of it indicates the type of strategic emphasis (Internal or external). From the impact of environmental needs and the organization strategic emphasis is formed the four types of organizational culture that each one can be associated with the type of strategic emphasis and degree of environmental sustainability compatible with it.

**A) Compatibility culture:** This type of culture that has many flexibility, while it is formed that the organization strategic emphasis is on the external environment. The organization has a lot of requirement which by applying of the flexibility and change move towards of the customer needs. The compatibility culture is a kind of beliefs and behavioral norms that the organization can be support in the discovery, interpret and translate the environmental symbols in the form of new behaviors. This type of organization should be fast response to the environmental needs, to adjust their structure and to apply the new requirements easily.

**B) Apostolic culture:** In this type of organizations, is paid attention to the external environment. But the accelerating change is not face to face. Apostolic culture has focused its fundamental emphasis on a common vision towards of the organizations goals. The expectation of this culture from the organizational humans, is a deep understanding of the organization's mission that goes beyond explaining of the job roles. The main focus on the organization strategic orientation is the future and achieve to distant ideal goals.

**C) Participatory culture:** The first emphasis of this culture is involving and participating of the employee in tasks with regard to changing accelerating of the intra- organizational environment, so the organization purpose in this case is the fast response to the environment and increase efficiency. From the perspective of participate culture, involving and participating of the employee in organization tasks is the sense of responsibility and belonging in the organizational individual which in line

with the people commitment amount towards of aims and organization activities that considerably increases.

**D) Adaptability culture (Continuity):** The emphasis of this culture on inter- organizational environment in relation to the relative stability of the environment. Continuity culture supports from the regular and expected trends in business management. Symbols, rituals, myths and other cultural elements are acted in the field of the situation stabilization, coordination, preserve of traditions and comply with the policies and established procedures.

### 3. Research method

This research in terms of purpose is based on applied method and in terms of data gather is based on survey method. The statistical population of the present study consists of Qazvin province manufacturing firms that among these companies, about 220 samples were selected by random sampling. To data gather, a questionnaire of Denison culture is used which it consist of 60 questions.

In this study, Cronbach's alpha coefficient for the dependent variable and for each independent variable has been calculated. The alpha method reliability all of them is higher than 0/85 and the calculated alpha average for these variables is 0/89.

It should be noted that if Cronbach's alpha coefficient to be calculated more than 0.7 the questionnaire reliability is

evaluated desirable and assessment questionnaire of international markets which determines the amount of importance factors in decision - making for export to a foreign market, has been composed. The questions of this questionnaire were designed with 5 items and how to score and interpret the results has been described. For data analysis, Pearson correlation coefficient with SPSS18 software has been used.

## 4. Findings

### 4.1 Research Hypotheses

1. There has been a significance relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies.
2. There has been a significance relationship between compatibility culture and international marketing of Qazvin province manufacturing companies.
3. There has been a significance relationship between adaptability culture and international marketing of Qazvin province manufacturing companies.
4. There has been a significance relationship between mission culture and international marketing of Qazvin province manufacturing companies.

**First Hypothesis:** There has been a significance relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies.

Table (1): The relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies.

Subject	Used statistic	Value	Significance level
Participatory culture in the work international marketing	Pearson	0.518	0.000

Since that the significance level (0.000) is less than 0.05; so, there has been a significance relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies. So that by increasing the participatory organizational culture in the work because of the proximity of the Pearson correlation coefficient (0.518) to

number '1' increases. Then, the research first hypothesis is accepted.

**Second Hypothesis:** There has been a significance relationship between compatibility culture and international marketing of Qazvin province manufacturing companies.

Table (2): The relationship between compatibility culture and international marketing

Subject	Used statistic	Value	Significance level
Compatibility culture and international marketing	Pearson	0.593	0.000

Since that the significance level of Pearson coefficient (0.000) is less than 0.05; so, there has been a significance relationship between compatibility culture in the work and international marketing. So that by increasing the compatibility culture in the work because of the proximity of the Pearson correlation

coefficient (0.593) to number '1', international marketing increases. Then, the research second hypothesis is accepted.

**Third Hypothesis:** There has been a significance relationship between adaptability culture and international marketing

Table (3): The relationship between adaptability culture and international marketing

Subject	Used statistic	Value	Significance level
Adaptability culture and international marketing	Pearson	0.447	0.000

Since that the significance level of Pearson coefficient (0.000) is less than 0.05; so, there has been a significance relationship between adaptability culture and international marketing. So that by increasing the adaptability culture because of the proximity of the Pearson correlation coefficient (0.447) to number '1',

international marketing increases. Then, the research third hypothesis is accepted.

**Fourth Hypothesis:** There has been a significance relationship between mission culture and international marketing of Qazvin province manufacturing companies.

Table (4): The relationship between mission culture and international marketing

Subject	Used statistic	Value	Significance level
Mission culture and international marketing	Pearson (gamma)	0.422	0.049

Since that the significance level of Pearson coefficient (0.422) is less than 0.05; so, there has been a significance relationship between mission culture and international marketing. So that by increasing the mission culture because of the proximity of the Pearson correlation coefficient (0.000) to number '1', international marketing increases. Then, the research fourth hypothesis is accepted.

## 5. Conclusion

There has been a significance relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies. Since that the significance level (0.000) is less than 0.05; so, there has been a significance relationship between participatory culture in the work and international marketing of Qazvin province manufacturing companies. So that by increasing the participatory organizational culture in the work because of the proximity of the Pearson correlation coefficient (0.518) to number '1', international marketing increases. Then, the research first hypothesis is accepted.

There has been a significance relationship between compatibility culture in the work and international marketing. Since that the significance level of Pearson coefficient (0.000) is less than 0.05; so there has been a significance relationship between compatibility culture and international marketing. So that by increasing the compatibility culture in the work because of the proximity of the Pearson correlation coefficient (0.593) to number '1', international marketing increases. Then, the research third hypothesis is accepted. There has been a significance relationship between mission culture and international marketing of Qazvin provinces manufacturing companies. Since that the significance level of Pearson coefficient (0.000) is less than 0.05; so, there has been a significance relationship between mission culture and international marketing. So that by increasing the mission culture because of the proximity of the Pearson correlation coefficient (0.422) to number '1', international marketing increases. Then, the research fourth hypothesis is accepted.

## 5.1 Suggestions

**1-Internationalization:** For the business company which is include the interaction between environmental forces and management behavior, as the effect of each of them is evident also in the global market. When the company thinks about internationalize, it should be within the framework of contingency. In fact, the companies in different environments to do different tasks must be actin different ways.

**2-Confidence building:** Since that the confidence in the domestic markets helps to the partners' exchanges, coordinate their activities and reducing transaction costs, is very important, so that this importance is more evident in the abroad participation, because the cultural distances at the beginning of transaction often leads to poor coordination between partners and in order to create the value for foreign customer, we need to coordinate. The foreign partners' confidence to each other can create the necessary flexibility to them for adapting unfamiliar international markets.

**3-International Commitments:** It describes that which resources, including human and financial, are available to marketers, to work in international markets. International commitment can be used as a tool control of marketing activities in foreign markets. High level of control is considered as a strategic point. An international manager who wants a high level of control, requires to allocate resources to control work tasks. Consequently, the international commitment is very wide, but the control can be considered as a positive determinant.

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## INVESTIGATING THE PSS AND STATCOM SIMULTANEOUS OPERATION IN TRANSIENT STABILITY OF POWER SYSTEMS

<sup>a</sup>FARSHID HAJZADEH, <sup>b</sup>HOSSEIN TOHIDI

<sup>a</sup>Department of Electrical Engineering, College of Engineering, Malekan Branch, Islamic Azad University, Malekan, Iran

<sup>b</sup>Department of Electrical Engineering, College of Engineering, Malekan Branch, Islamic Azad University, Malekan, Iran

Email: <sup>a</sup>farshid\_haj\_s@yahoo.com, <sup>b</sup>hosn.tohi.1976n@gmail.com

**Abstract.** Power system stability is necessary to guaranty its right operation. In early years using FACTS devices as a one of effective methods for improving the performance of system controllability and power transmission limitations is presented. Considering the non linear characteristic of power system the linear methods are not convenient for designing the stabilizers. In this paper, the non linear method of power system is considered for simultaneous designing of power system stabilizer (PSS) and static synchronous compensator (STATCOM). Moreover, simultaneous designing of power system stabilizer (PSS) and static synchronous compensator (STATCOM) is represented by PSO algorithm. Comparing this algorithm with other intelligent algorithms existing in Condor four-machine system, Indicates the more efficiency of this algorithm.

**Key words:** static synchronous compensator (STATCOM), power system stabilizer (PSS), PSS and STATCOM coordination, PSO algorithm

### 1. Introduction

One the most important issues in truly applying power system, is power system stability. Considering this issue that load of grid is variable, it is necessary to system keep its stability and synchronism in facing with this variations which are known as disturbance. Therefore, in recent decades different methods for designing the stabilizer were center of attention. According to increasing use of FACTS devices and their effect in improving damping of power system oscillations, operation synchronization of these controllers by power system stabilizer is necessary (Hingorani, 2000). As a power system is a non linear system, the stabilizer and FACTS device controller parameters should be designed for non linear models. In this way, in recent years, using evolutionary algorithm for solving optimizing problems is considered. Intelligent algorithms such as genetic algorithm (Kundur, 1994), (PSO) particle swarm optimization (Bomfim and Taranto, 2000), simulated annealing, are used for designing and adjusting the PSS parameters. Moreover, in PSS designing is done by Particle swarm optimization PSO and bacterial foraging algorithm BFA and results are compared with each other.

Coordinated designing of PSS and TCSC is studied in (Shayeghi et al. 2010; Abido, 2000). In simultaneous design of PSS and SSSC is investigated by Multi-Objective Evolutionary Programming. Coordinated design of SVC and PSS by Probabilistic theory is suggested in (Das et al. 2008). In this research stabilizer coordinated designing of power system and STATCOM considering non linear power system model is considered in four-machine system. For adjusting the coordination of PSS and STATCOM parameters the mentioned algorithm is used and the result of simulation shows the power of PSO algorithm for coordinating the PSS and STATCOM for improving the stability of system.

### 2. STATCOM modeling

In figure (1) the single machine power system with STATCOM is shown.

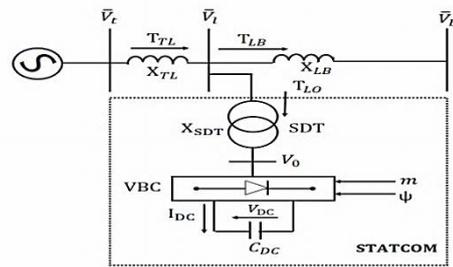


Figure 1: single machine power system connected to an infinite bus with STATCOM connection

In STATCOM, for controlling the injected reactive power, an inverter of voltage source with voltage of  $V_p$  is used. In steady condition, the DC bus voltage is constant and in the condition of  $V_s > V_p$  then STATCOM absorbs reactive power from AC bus and vice versa. Cai and Erlich (2005) first the STATCOM equations are provided in the reference frame of q and d, but considering this issue that the reference of reactive current is determined by AC bus voltage. The q'd' frame is chosen in a way that d' axis is tangent with AC bus voltage. The vector diagram of q and d reference frame and q' and d' frame is shown in figure 2 (Aziz et al. 2013).

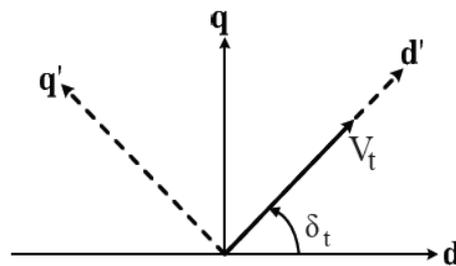


Figure 2: vector diagram of q and d reference frame and q' and d' frame

The dynamic equations of current of STATCOM q and d' components are as following:

$$\frac{di_{pd'}}{dt} = -\frac{R_p}{L_p} i_{pd'} + \omega i_{pd'} + \frac{1}{L_p} (V_s - V_{pd'}) \quad (1)$$

$$\frac{di_{pq'}}{dt} = -\frac{R_p}{L_p} i_{pq'} - \omega i_{pd'} + \frac{1}{L_p} (-V_{pq'}) \quad (2)$$

In which  $V_{pq'}$  and  $V_{pd'}$  are the voltage of q' and d' components of voltage source. The  $V_{pq'}$  and  $V_{pd'}$  voltages are defined as following:

$$V_{pq'} = V_{pq} \cos \delta_t - V_{pd} \sin \delta_t \quad (3)$$

$$V_{pd'} = V_{pd} \cos \delta_t - V_{pq} \sin \delta_t \quad (4)$$

By replacing equation 3 in equation 1 the differential equation of STATCOM can be obtained as following:

$$\omega = \omega_0 + \frac{d\delta_t}{dt} \quad (5)$$

In which the  $\omega$  is the frequency of STATCOM voltages angles. The  $V_{pq'}$  and  $V_{pd'}$  can be obtained from following equations:

$$V_{pq'} = -(\omega L_p i_{pq'} + L_p u_q') \quad (6)$$

$$V_{pd'} = \omega L_p i_{pq'} + V_s - L_p u_q' \quad (7)$$

$$\frac{di_{pd'}}{dt} = -\frac{R_p}{L_p} i_{pd'} + u_d' \quad (8)$$

$$\frac{di_{pq'}}{dt} = -\frac{R_p}{L_p} i_{pq'} + u_q' \quad (9)$$

In which  $u_d'$  and  $u_q'$  are controlling signals that are obtained by PI controller.

Moreover, the dynamic equation of DC bus voltage is as following:

$$\frac{dV_{dc}}{dt} = \frac{3}{2CV_{dc}} [V_s i_{pq'} - (i_{pd'}^2 + i_{pq'}^2) R_p] - \frac{V_{dc}}{CR_{dc}} \quad (10)$$

In which  $V_{dc}$  is capacitor voltage,  $C$  is the value of dc capacitor, and  $R_{dc}$  is resistance parallel with dc capacitor which is equal to STATCOM switching losses. The above equations are three dynamic STATCOM equations. Figure 3 illustrates the STATCOM controller structure (Hashemi et al. 2013).

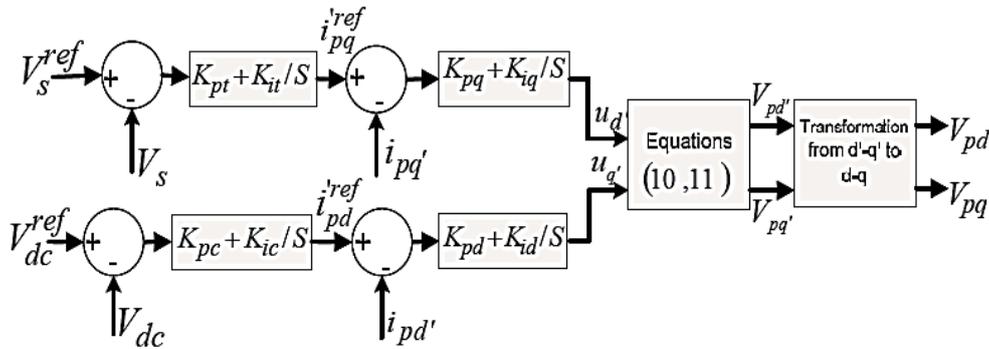


Figure 3: STATCOM controller structure

### 3. Synchronous machine model

A synchronous machine with an appropriate approximation is modeled by three stator coil and three coils over rotor (one field coil and damper coil). The dynamic equations which define the machine behavior are consisting of electromagnetic equation between coils and electromechanical equation of dynamic of rotor.

Electrical equations: natural linear electrical differential equations (regardless of magnetic saturation) and time variable. By definition of new variables and using a transformation named Park's transformation not only these equations will be very simpler than before, but they loss the characteristic of being time variable (Afzalan and joorabian, 2013). These simplified equations are very applicable in different power system studies.

For obtaining a model with least order, unimportant phenomenon in low frequency oscillations are neglected.

The most considerable phenomenon is:

1) by the time of low frequency oscillation the converted current in damper coils is low therefore; these coils are neglected in modeling.

2) since the special stable rates corresponding to q and d coils (stator coils) are adequately far from imaginary axis; these equations are considered in algebraic form. Only the remaining electric differential equation is related to synchronous machine field which is kept because of importance of its dynamic and applying control by excitation system.

Mechanical equations (oscillation):

This equation indicates the dynamic of circular motion of rotor and in a descriptive way is: The resultant of electrical and mechanical torque on rotor is equal to moment of inertia multiplied by the angular acceleration. The above equation is a non linear second order differential equation. Considering the desired topic meaning the answer of power system to small changes, the differential equations are defined around an operating point, linear, and with  $K_1$  to  $K_6$  coefficients. Using these equations not only leads to a physical view, but simplifies the appearance of equation. The above coefficients depend on machine, transmission grid, and operating point. The figure 4 shows the synchronous machine connected to Infinite bus in form of block diagram. In this block diagram the machine excitation system is modeled in the form of a first order transmission function. Two main mechanical and electrical loops can be seen in up and down of figure.

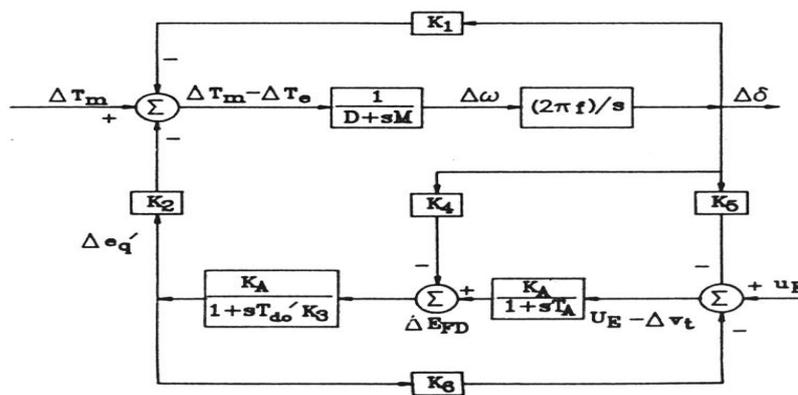


Figure 4: the block diagram of transmission function for studying low frequency oscillation phenomenon

The characteristic equation of mechanical loop is:

$$(Ms^2 + Ds + K_1\omega_b)\Delta\delta = 0 \quad (11)$$

Roots of above equation are the oscillation modes of system and are very important. Difference of electrical and mechanical torque is input of this loop and velocity, and rotor angle are output of this loop.

Transmission functions corresponding to excitation and circuit of synchronous machine field are placed in electrical loop. This block diagram is beautifully analyzed in reference (Singh and Kadagala, 2012) and the effect of different dynamics on K1 and K6 coefficients and following that on stability of synchronous machine is explained. The system state equations can be obtained easily from this block. By choosing state vector in a following way:

$$X = [\Delta\omega \quad \Delta\delta \quad \Delta e'_q \quad \Delta E_{fd}]^T \quad (12)$$

It can be written that:

$$\dot{X} = AX + B_{UE} \quad (13)$$

In which A and B matrixes are:

$$A = \begin{bmatrix} 0 & -K_1/M & -K_2/M & 0 \\ \omega_b & 0 & 0 & 0 \\ 0 & -K_4/T_{do} & -1/T_{do}K_3 & 1/T_{do} \\ 0 & K_A K_5/T_A & -K_A K_6/T_A & -1/T_A \end{bmatrix} \quad B = \begin{bmatrix} 0 \\ 0 \\ 0 \\ K_A/T_A \end{bmatrix}$$

#### 4. PSS designing stages

The phase lead circuit and PSS gain is down like following respectively:

##### 4.1. Calculating $\omega_n$ frequency of electromechanical mode

Regardless of natural damping, the mechanical characteristic equation is obtained in following form that by solving it the natural immortal frequency can be obtained.

$$Ms^2 + K_1\omega_b = 0 \quad (14)$$

$$s = \pm j\omega_n \quad \omega_n = \sqrt{\frac{K_1\omega_b}{M}}$$

##### 4.2. Designing phase compensator

First the transmission function between  $\Delta e'_q$  and  $u_E$  in electrical loop is calculated ( $G_E(s)$ ). The value of phase delay of this transmission function in exchange for  $\omega_n$  should be compensated by a phase lead circuit. A normal form for phase compensator is:

$$G_c(s) = \left( \frac{1+sT_1}{1+sT_2} \right)^K \quad K=1 \text{ or } 2 \quad T_1 > T_2 \quad (15)$$

In which the K is the number of first rank blocks and for compensating large angles two blocks are used. For  $T_2$  usually a characteristic value is selected. The only remaining parameter is the T1 compensator circuit which is determined by equation (16).

$$\angle G_E(s) \Big|_{s=j\omega_n} + \angle G_c(s) \Big|_{s=j\omega_n} = 0 \quad (16)$$

#### 4.3. Gain designing

The value of  $D_E$  in equation (17) can be controlled by PSS.

$$X = [\Delta\omega \quad \Delta\delta \quad \Delta e'_q \quad \Delta E_{fd}]^T \quad (17)$$

The PSS gain called  $K_C$  is equal to:

$$D_E = K_2 K_C |G_c(s) \Big|_{s=j\omega_n} |G_E(s) \Big|_{s=j\omega_n} \quad (18)$$

On the other hand regardless of D and considering standard form of characteristic equation:

$$s^2 + 2\xi\omega_n s + \omega_n^2 = 0 \quad (19)$$

$$D_E = 2\xi\omega_n M \quad (20)$$

By removing  $D_E$  between (18) and (20) equation the value of gain of PSS can be obtained based on damping coefficient.

$$K_C = 2\xi\omega_n M / (K_2 |G_c(j\omega_n)| |G_E(j\omega_n)|) \quad (21)$$

Figure 5 shows the block diagram of a PSS.

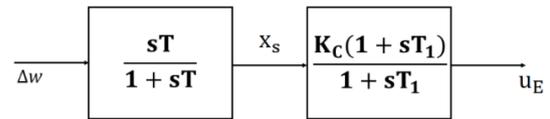


Figure 5: PSS block diagram

#### 5. Simulation results

Figure 6 shows the general simulation structure in Simulink environment. Simulation is done in two levels, first parameters is found by PSO algorithm without optimization then the effect of optimization on value of studying parameters is investigated by PSO algorithm. In studying process and finding the results six parameters are investigated and compared which are: the velocity of generator G1, the velocity of generator G2, the velocity of generator G4, STATCOM injected voltage, generator velocity difference of G4 and G1, and generator velocity difference of G4 and G3.

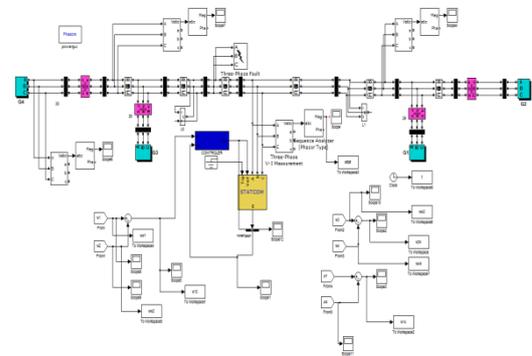


Figure 6: general structure of simulation in simulink environment

Overall, simulation is done in two levels, first the optimum value is obtained by PSO algorithm by coding in mfile environment of

MATLAB then the output of this section is linked to simulink of MATLAB software.

Table 1: the values of STATCOM block parameters

parameter	Unit	value
Maximum reference vltatage changing rate ( $V_{ref}$ ) drop	perunit	0
regulator gains $V_{ac}$ ( $K_p, K_i$ )	-	12,100
regulator gains $V_{dc}$ ( $K_p, K_i$ )	-	50,1000
Current regulator gains ( $K_p, K_i, K_f$ )	-	3,1,4

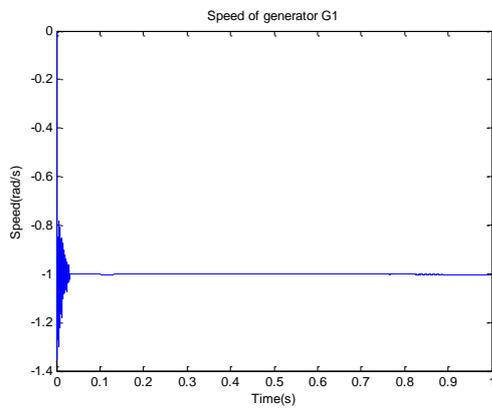


Figure 7: the velocity of generator G1 without optimization by PSO

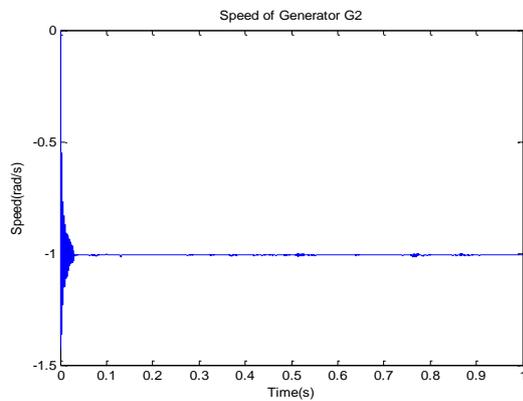


Figure 8: the velocity of generator G2 without optimization by PSO

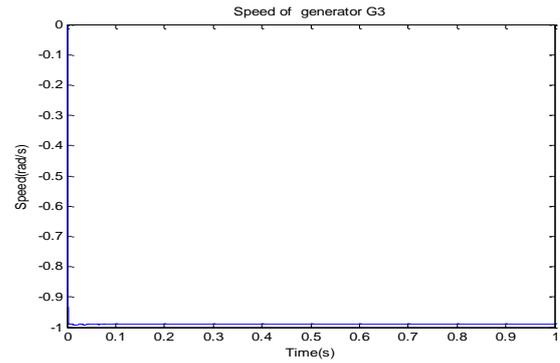


Figure 9: the velocity of generator G3 without optimization by PSO

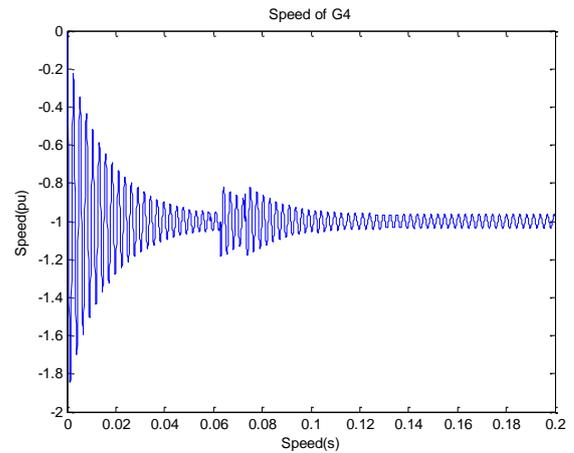


Figure 10: the velocity of generator G4 without optimization by PSO

By a close look at the figures it can be said that the most and least change domain occurs in G3 and G4 generators respectively. Behavior pattern of G1 and G2 are very similar. The G3 generator gets damped in least possible time. Figure 11 shows the injected voltage by STATCOM.

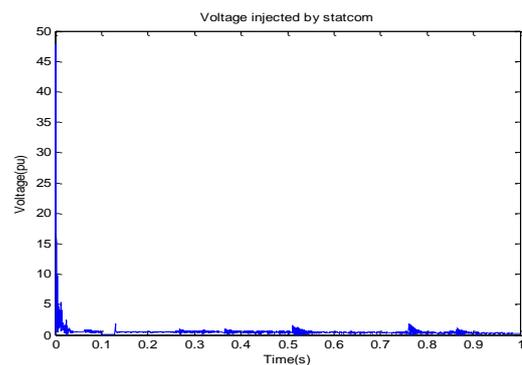


Figure 11: the injected voltage by STATCOM without optimizing by PSO

By a close look at the figure 11 it can be claimed that in some initial cycles of voltage domain decreases from 50 to less than 1 per unit quickly. The behavior of this voltage after passing the transient was not so linear and has distortion and domain changes.

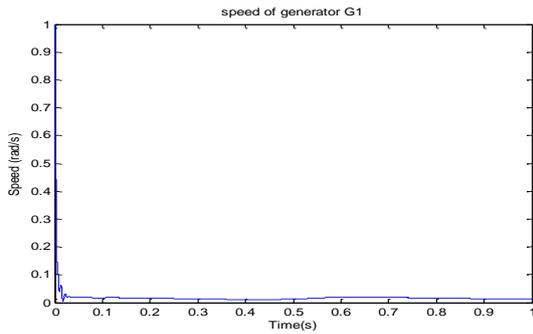


Figure 12: the velocity of G1 generator with PSO

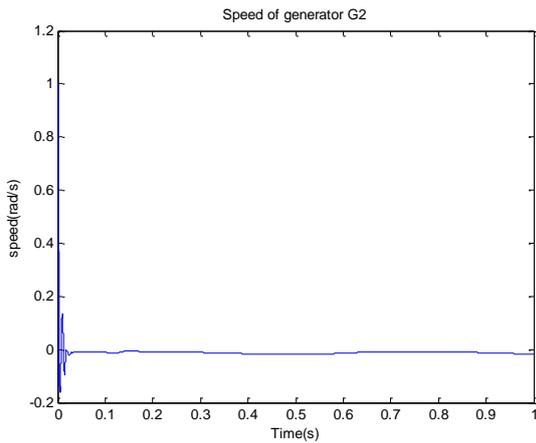


Figure 13: the velocity of G2 generator with PSO

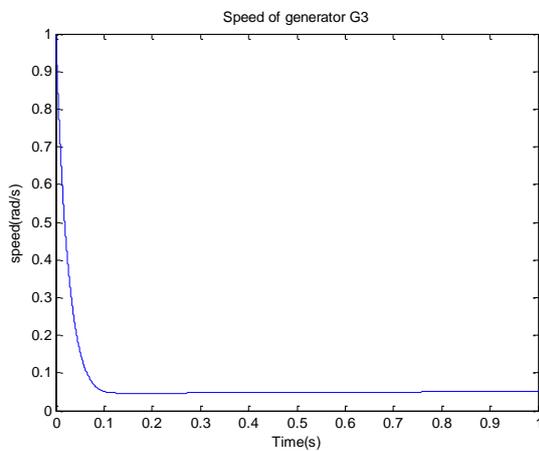


Figure 14: the velocity of G3 generator with PSO

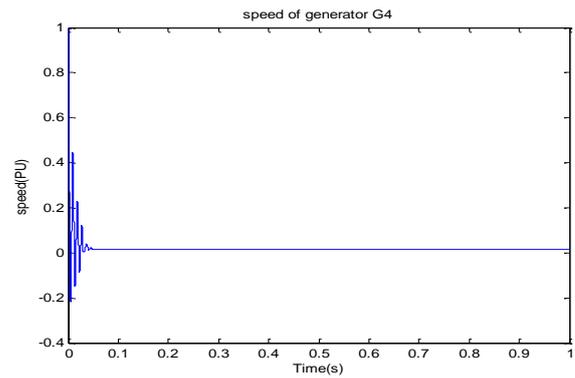


Figure 15: the velocity of G4 generator with PSO

By attention to above figures, the G1 and G2 generators have least and most velocity domain change respectively. the G1 and G3 generators have similar behavior and G2 and G4 generators have similar behavior. Except G1 generator in other conditions in stable condition the distortion is low and neglect able. The injected voltage by STATCOM can be seen in figure 15.

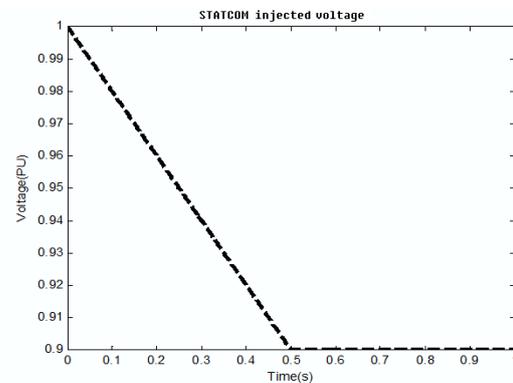


Figure 16: STATCOM injected voltage with PSO

Considering the figure 16 curve, this curve can be divided in two independent parts. Up to 0.5 second the curve is completely descending and after 0.5 second it is direct and linear.

**6. Conclusion**

In this paper, coordinated designing of power system stabilizer and STATCOM for increasing damping is done by PSO. The results of simulations by PSO algorithm are indicative of positive effect of this algorithm on velocity of generators for error state. Moreover, by attention to desirable performance of designed controller against system changes the improvement of accuracy and velocity of process of investigating determining optimum parameters of system is proven.

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## STUDY THE EFFECT OF SOCIAL CAPITAL ON SOCIAL HEALTH OF STUDENTS AT IRAN MEDICAL SCIENCES UNIVERSITY IN THE PRESENCE OF PIETY AND SOCIAL SUPPORT VARIABLES IN 2016

<sup>a</sup>MARYAM HASHEMPOUR, <sup>b</sup>MEHRDAD NAVABAKHSH, <sup>c</sup>HOSSEIN ABOLHASSAN TANHAIE

<sup>a</sup>Department of social science, Islamic Azad University of Tehran Markaz., Tehran, Iran

<sup>b</sup>Faculty Member of Research and Science University

<sup>c</sup>Department of social science, Islamic Azad University of Tehran Markaz., Tehran, Iran

Email: <sup>a</sup>ma.hashemipour@gmail.com,

<sup>b</sup>mehrdad.navabksh.nv@gmail.com, <sup>c</sup>h.abolan.tan@gmail.com

**Abstract.** The purpose of the present study is to check social health status and predict the effects of social capital, social protection and religiosity of University of Medical Sciences. The results showed that the social health has a relationship between social capital (Sig = 0.000), piety (Sig = 0.014) and social support (Sig = 0.000). Analysis of the theoretical model of social capital research directly 0.232 explain the changes in public health. And also trust dimension with the rate of 0.319 the capacity of the network to the next 0.311 is directly and others support with the rate of 0.147, the family support with the rate of -0.112 explain the changes in public health. Strengthening the social capital and other predictive variables in the research seems necessary.

**Keywords:** Social Health, Social Capital, Piety, Social Support, Iran University Students.

### 1. Introduction

Young generation has an important role in the sustainable development of community of any society as human capital. Today this generation in terms of technical capability in the dynamics of youth and energy, can have a decisive influence on the future of their community; such vitality and dynamism thus benefit from health and social capital parameters can be achievable; because social health somehow is individual performance and it depends on people investing in social relations and taking the available resources at the community level in these relations and helps to earn returns. "(Nickvarz, 2012)

Physical and mental health is not just freedom from disease, but it is how human social relations and how he thinks of the community health assessment criteria in the society at large (Samaram, 2010). Keyes (2004) knows social health as the monitoring and evaluation of how people operate in the community and the quality of relationships with other people, relatives and members of their social groups. For he and Shapiro it does more to life its richness and meaning relatives, relationships, and shared experiences. (Keyes and Shapiro, 2004). In Hendry et al (2006) Social Health is not absence of mental illness, or even the absence of negative emotions in certain contexts that can be considered a constructive response, but it is the ability to perform effective and efficient social roles without harming others (Raymond, 2004; quoted in Babapour et al., 2010). Social health manifested as the relationship status with others in the community of individuals in the society (in terms of social prosperity, social adaptation, social cohesion, social acceptance and community involvement manifested (Alizadeh et al., 2015)

The social capital in the field of stable public health has specific characteristics that refer to the social empowerment, community organizing, group or public voluntary participation to solve the problems in the majority. Accordingly, "in the absence of social capital, the ability to work collectively with the resources do not exist for general purpose, it is unlikely that only financial capital and increasing human capital can cause positive results" (Tajbakhsh, 2006). Social capital that has a sociological aspect, is also located as a lever to raise and accepted by many successful entrepreneurs. In the absence of social capital, other capitals lose their effectiveness and without social capital,

cultural and economic path of development, are rugged and difficult (Rarani Amini et al., 2012).

Since the individual characters are influenced by the quality and quantity of interpersonal relationships, lack of social support from family, friends and others may reduce individual resources to cope with challenges, and probably lead to disorders; because the supports that person receives from family, friends or community directly affect the social health (Bastani, et al., 2009).

Haddon (1983) argues that piety is the main cause of social, religious and intellectual-practical integrity and orientation in problems of phenomena and social issues (Nazkbar and others, 2007: 234 quoted by Firouz Rad, 2016) The piety means a religious obligation and having it in a way that affects attitude, tendency and individual actions. Religion is often a powerful factor determining social phenomena, to shape the institutions, to effect the values and influence the relationships (Zakerman, 2016). In general, religious practices and beliefs associated with health of personal or social community (Dei, 2010).

By the presence of numerous factors, such as being away from family, living in student accommodation, entry to a larger collection and stressful, compatible with culture and different people, economic problems and lack of sufficient income, type of activity and the role that they are doing also numerous expectations that others have of them and the responsibility they hold for themselves (Alizadeh et al., 2014) make it necessary to investigate the social factors affecting health status among Iran university students. Purpose of this study is to evaluate the social Health University of Medical Sciences and predict the effect of social capital, social protection and piety on it.

### 2. Materials and methods

This research is descriptive - explanatory that it is done in precise way in the fall of 2016 to identify factors that affect the social health of students in Iran University of Medical Sciences. The study sample included all the students in Tehran University of Medical Sciences that they were in university in 2016 the number of 7436 students to study. The sample size was calculated using the formula Cochran 365 people that due to the possibility of data loss of the number of questionnaires collected increased 10% and considered 400 subjects. The selection of the sample, table and the number of students prepared and was determined using a stratified random sampling. In this study a standard questionnaire was used to collect information such as Keyes Social Health (1998), Social capital Stone (2001) Social protection for sunflowers (1976), Piety Aston and Clark (according to the Taleban, 1999). To test the hypothesis Pearson's correlation coefficient and to explain the contribution of each independent variable regression and path analysis using software (spss) version 20 was used.

#### 2.1 Validity and Reliability of the questionnaire

In this study, to evaluate the reliability of structures the confirmatory factor analysis technique is used. Confirmatory factor analysis indicated that based on confirmatory factor analysis KMO value among all variables was estimated to be more than 70%. The relationships among the items are suitable for factor analysis to measure the relevant variables in the study are fit enough and faithful credit. As well as to establish the reliability of Cronbach's alpha was used. Thus, by conducting a preliminary study with a sample size of about 30 students of Iran who were selected randomly, Cronbach's alpha was calculated for variables of 0.70 that is acceptable in the humanities alpha (Edrisi, 2008).

Table 1: the achievements caused by goodness- of- methods theoretical model fitting Test item analysis and factor analysis

Indexes / Indices	Alpha	Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	Bartlett's Test of Sphericity Approx. Chi- Square (BTS)	Degree Freedom (df)	Significance Level (Sig)
All items in the questionnaire	9.87	0.832	934.15782	3570	0.000
The social health rate	1.75	0.747	229.1654	190	0.000
The social capital rate	8.76	0.743	437.1806	231	0.000
The social support rate	74	0.725	769.1051	36	0.000
The piety rate	6.89	0.906	080.4341	276	0.000

**2.2 Theoretical and operational definition of the research variables**

Conceptual and operational definition of independent variables: Social Health

Keynesian (1998) defines the social health as the individual's performance assessment in the community (Sam Aram, 2011). The means of social prosperity is the people's perception of the issue that they will benefit from social development. Social Solidarity means that people feel integration with other person that must be the results of experience is shared with others. Social cohesion is people who have a positive attitude to their character and accept good and bad aspects of the life both with each other, examples of mental and social health are social acceptance, confidence in the innate goodness of others and

positive view of human nature that cause people feel comfortable with other members of the society. In order to determine the individual requirements for the role of community participation in society (Hatami, 2001) The purpose of the social participation means to determine the individual requirements for the role of society (Hatami, 2001)

Conceptual and operational definition of independent variables:

Social capital Social capital relationship options related to social position, constitute a potential source of increased social Ice tray (Chalbi, 1997), Stone (2001) the indicators used in studies of social capital are divided into two categories. In Stone's classification the structure of social relations and quality of social relations are the keys of dimensions of social capital. (Rahmani, 2015)

Table 2: Operational definition of social capital

Concept	Dimension	Petty dimensions	Components	
Social capital	The structure of social relations: networks	Network structure	Official	
		The size and capacity of networks	Unofficial	
	the quality of the relations	trust	Limited / extensive	Homogeneous / inhomogeneous
			Home / World	
		trust	Dense / sparse	the trust between people
			Generalized trust	
Trust in institutions				
	Reciprocal treatment	Objective / Alternative		

**2.3 Conceptual and operational definition of independent variables: social support**

Koub (1976) defines social support as a set of data which leads one to believe that in a communication network that are in other's interest (Rastegar, 2006). Variable measuring of social support takes place in three groups: family, friends and others. The objective of this study is to support or means of indicating the availability of physical protection. In this type of support, the help is from people who are close. Information support includes help in understanding a problem that is hard to understand. This type of support indicates the information that one can make use of the personal and environmental issues. Emotional support resources related to having those implies that for comfort and confidence, one can refer to them. People who have enough emotional resources, typically, feel they have others that can refer to them when dealing with the problems (wax Fleming, 1986 to the Varmazyar, 2009)

**2.4 Conceptual and operational definition of independent variables: Piety**

Glock and Stark believed that despite of the world's religions differ in many details, but they have general areas that piety appears in that area or dimension (Ahmad, 2010). Clark and Stark standard in different countries, America, Africa and Asia and the religions of Christianity, Judaism and Islam has been implemented (Quoted Mohammad Reza Talebi, 1999) Validity of the questionnaire is confirmed Sharifi (2004). Based on model of Clark and Stark piety includes belief, emotional, consequences and ceremonial.

**3.The research results**

According to Table 3 Average observed social Health 44.30 is lower than expected average (50). The observed mean social capital 47.13 is lower than expected average (55) and the observed mean of piety 2473 is less than the average expected (22.5). The observed mean piety includes 58.90 is lower than expected average (60).

Table 3: Distribution of frequency and percentage of dependent and independent variable

Social Health	very little		little		Very much		Much		The observed average	The expected average
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage		
Social capital	2	0.5	132	34	242	62.4	12	3.1	44.30	50
social support	5	1.3	150	38.7	224	57.7	9	2.3	47.13	55
Piety	2	0.5	35	9	237	61.1	114	29.4	24.73	22.5
Social Health	9	2.4	87	22.4	210	54.1	82	21.1	58.90	60

According to table 4, there is a significant relationship between social capital and social health its dimensions. Also, there is a significant relationship between the dimensions of reciprocal treatment with social acceptance, trust the size of prosperity,

cohesion, social acceptance and participation, the capacity dimensions of cohesion, participation and social network with acceptance of the resort.

Table 4: the relationship between social health and its dimensions and social capital and its dimension

Pearson correlation		Social capital	Reciprocal treatment	Trust	Capacity	Network
Social Health	The Pearson	.232**	.045	.343**	.163**	.087
	Significant	.000	.375	.000	.001	.088
Efflorescence	The Pearson	.119*	.002	.250**	.085	-.014
	Significant	.019	.966	.000	.096	.790
Solidarity	The Pearson	.002	-.050	.023	-.054	.076
	Significant	.961	.324	.647	.288	.133
Cohesion	The Pearson	.252**	.081	.270**	.283**	.072
	Significant	.000	.113	.000	.000	.159
acceptance	The Pearson	.260**	.135**	.357**	.085	.147**
	Significant	.000	.008	.000	.095	.004
participation	The Pearson	.131**	-.016	.192**	.182**	-.001
	Significant	.010	.754	.000	.000	.988

According to Table.5 there is a significant relationship between the support of friends and social capital and its dimensions. There is a significant relationship between social capital and its

dimensions and the family dimension with social capital and capacity dimensions, trust and Reciprocal treatment, social support dimension friends and others.

Table 5: The relationship between social capital (its dimensions) and social support (ita dimensions)

Pearson correlation		Social support	family	Trust	others
Capital	The Pearson	.500**	.263**	.429**	.348**
	Significant	.000	.000	.000	.000
Network	The Pearson	.187**	.015	.229**	.136**
	Significant	.000	.765	.000	.007
Capacity	The Pearson	.459**	.288**	.456**	.219**
	Significant	.000	.000	.000	.000
Trust	The Pearson	.532**	.291**	.360**	.456**
	Significant	.000	.000	.000	.000
Transaction	The Pearson	.227**	.154**	.162**	.160**
	Significant	.000	.002	.001	.002

According to Table 5 There is a significant relationship between Piety variable with social capital and trust and Reciprocal treatment. As well as there is a significant relationship between Faithfulness between social capital and trust and reciprocal

treatment, the ceremonial aspects of social capital and networks, trust and reciprocal treatment, between the outcomes and social capital and trust and reciprocal treatment, emotional dimension of social capital and the capacity, trust and reciprocal treatment.

Table 6: The relationship between social capital (its dimensions) and Piety (its dimensions)

Pearson correlation		piety	faithfulness	Ceremonial	Outcomes	Emotional
Capital	The Pearson	0.271**	0.228**	0.260**	0.116*	0.236**
	Significant	0.000	0.000	0.000	0.023	0.000
Network	The Pearson	0.079	0.006	0.171**	-0.015	0.053
	Significant	0.119	0.898	0.001	0.769	0.301
Capacity	The Pearson	0.066	0.073	0.030	-0.089	0.180**
	Significant	0.192	0.149	0.558	0.081	0.000
Trust	The Pearson	0.365**	0.341**	0.271**	0.299**	0.266**
	Significant	0.000	0.000	0.000	0.000	0.000
Transaction	The Pearson	0.262**	0.231**	0.274**	0.128*	0.175**
	Significant	0.000	0.000	0.000	0.011	0.001

According to the results in Table 6, the determination coefficient of social health in terms of different dimensions of social capital variables, social support and Piety was measured on this basis is R2=0.157. Of the three independent variables, trust, network capacity

and social capital variables, respectively 0.131 and 0.319 have effect on the social capital of the students. The family and other of social support variables by rates 0.112 and 0.147 Iran university students have a direct effect on of social health.

Table7: Regression coefficients of dependent variable: social health

The amount and Significant F			The standard Pearson correlation		The standard Pearson correlation	T	Significant
	B	The standard deviation	Beta				
F=6/354 Sig=0/000	stable amount	36.438	2.805			12.991	0.000
	social capital	0.202	0.045	0.232		4.683	0.000
157/0 = R2	social capital	capacity	0.326	0.159	0.1310	2.047	0.041
		trust	0.736	0.141	0.319	5.225	0.000
	social support	family	-0.452	0.220	-0.112	-2.058	0.040
		others	0.515	0.196	0.147	2.626	0.009

According to the results presented in Table 8, the determination coefficient based on different dimensions of social capital and social support and Piety variables were measured On this basis is R2=0.305 Family dimensions, friends and others social

support variables are as much as 0.126, 0.171, 0.349 and ritual dimension of piety to have direct effect on social capital in 0.231.

Table 8: Regression coefficients dependent on variable: social capital

The amount and Significant F			The standard Pearson correlation		The standard Pearson correlation	T	Significant
	B	The standard deviation	Beta				
F=23.792 Sig=0.000	stable amount	21.792	2.616			8.329	0.000
	social support	capacity	0.584	0.220	0.126	2.653	0.000
R2=0.305		trust	10.444	0.194	0.349	7.458	0.000
		family	0.691	0.194	0.171	3.566	0.000
		others	0.373	0.085	0.231	4.393	0.000

According to the research model 15.7 percent social health of variance explained by the independent variable composition 84.3 changes be explained by factors outside of the model.

#### 4.Results

The issue of student's health is a critical issues that today cause to many challenges (Kadysvn Vdygrnvmv, 2004; Snyder, 2004). Block and Breslow for first time in a year1972 considered social health with community members as synonymous and make social health index. The importance of issue increase in time that some studies show the problems of this category are increasing. For example, the results of a 13-year longitudinal study showed that students today go to university counseling centers to a greater extent than before; in addition, their problems also become more complex (Benton et al, 2003). Raymond et al (2004) that refers to some of the social challenges, social acceptance, social participation, social prosperity and social cohesion. Keynesian social health involves components that together indicate the quantity and quality of enjoyment of life is the right person, he said, mental health, quality of life and individual performance cannot be assessed without regard to social criteria, Rafie et al., 2011). Results of this research show that the social health of university students in Iran were observed below the average that is sobering.

The results show Yazdanpanah Nei Kurz (2016) as well as social health of students Bahonar university of Kerman was average. Larsen defines social health of individual assessment of the quality of relationships with family, people and community groups. He believes that scale of social health measures that reflect the health of individual satisfaction or dissatisfaction with life and her social environment and in fact (including responses such as the person's inner feeling, thinking and behavior) Akbarian et al., 2011). Health studies using biological models, further emphasize on the privatization of health way; but people are in social structures and communication with and face countless challenges and social duties) Akbarian et al., 2011) Healthy individual socially knows the community with a

significant collection, understanding and the potential for growth and prosperity; there is a sense of belonging to the community, the community will be accepted and is involved in its development. Healthy people, socially as well as have a sense of belonging to social groups in society and its development partner. The content of social health scale, the whole positive assessment of the experiences of the individual in society. The new scale public health measures at the level of the individual (such as aggression and social support) and social level (such as poverty and social status) is different (Akbarian et al., 2011) There was a sense of social integration at the highest level leads to suicide (Durkheim, 1951). Healthy people feel they are part of society, so the social integration is between the persons common sense with others that make his social reality. They belong to your community. Social integration based on concepts such as social cohesion "Durkheim" cultural alienation and social isolation "Semen" and Class Consciousness "Marks". In term of Durkheim's social harmony and social well-being is a reflection of people to connect with each other through the criteria. Seeman believes that cultural alienation is to break the individual and the community, society or rejection of the view that society cannot be a reflection of cultural values and styles. On the other hand, social capital that known is as the missing link in the development of its results it is also less than average important variable in sustainable development should pay more attention to it. High levels of social capital can expand the powers and responsibilities. In recent years it has been shown that social capital by creating and providing an effective source of support for confidence and mutual respect, increase access to local health services, facilitating the process of crime prevention, promote the rapid transfer of medical information, raising the possibility of modeling the behavioral norms related to health and improving the opportunities of social control deviant behavior related to health, is of prime importance in public health (Linda Strvm and et al, 2006)

Although in this study piety does not have direct effect on the social health of university students in Iran but according to the research Kafashi (2015) explains the most direct effect will be

as a direct result of religious conviction the variable component of piety on social cohesion and social health factors. The results show of piety, health-oriented lifestyle variables. The results Rad et al., (2015) regression analysis suggests explanatory power of religion on the health of the community. Therefore, religion can often be a powerful factor determining social phenomena, to shape the institutions, to effect on the values and their relationships under their influence (Zaker, 2006: 175) Haddon (1983) believes that the main cause of social, religious and intellectual coherence, practical direction in solving problems of social issues and phenomena (Nazktbar and others, 2007: 234 quoted by Firouz Rad, 2016) totally, personal health practices and religious beliefs of a society is related to social and individual health (Dei, 2009)

The results show that there is a significant relationship between social capital and social health and its dimensions also there is a significant relationship between the reciprocity with social acceptance, self-actualization dimensions, cohesion, social acceptance and participation, the capacity of cohesion, participation and social network with acceptance of the resort. The results Afshani, Shir Mohammed Ayad and Safiri (2016) and Mansourian (2015) showed a significant relationship between social trust and social health. Based on the results of Sharbatian (2013), Rarani Amini et al. (2012) all dimensions of social capital have a significant relationship with social health. Results of Grozny (2011), Gilbert (2008) and Yip et al., (2007) suggest a significant positive relationship between social capital and social health.

Various links provide a wide range social support for network members. Social support enables students to have the ability to deal with everyday problems and crises of life and serve them well. According to Wellman (1992), the source of support and what kind of links, provides what kind of support, has of great importance (Bastani and Salehi Hikohi, 2006). The results of this study suggest that there is a significant relationship between the support of friends and social capital and its dimensions. There is a significant relationship between the family dimension with the social capital and the capacity dimensions, trust dimension and reciprocity, friend dimensions and others with variable social capital and social support. Hence this sense induces popularity and belonging to a network of bilateral linkages with others and feel useful to the students and with this their public health increases.

The results of present study suggest that there is a significant relationship between piety variable with social capital and trust dimension and reciprocity. As well as there is a significant relationship between faithfulness with social capital and trust dimension with and reciprocity, Between the outcomes and social capital and trust and reciprocity and the emotional dimension of social capital and the dimension of capacity, trust dimension and reciprocity. Sharbatyan (2013), in their study points out that gathering people in religious ceremonies, also strengthens the religious beliefs And creates sensational and extreme emotions that Strengthens the bond between people (Rahman, 2015). Durkheim believes that the religion makes a continuous collection and recreates and it conducts this by tightening the links that connect the individual (Jalali Moghadam, 2001).

## 5. Conclusion

In general, it can be concluded that Lack of social participation activities and distrust prevents the absorption of the individual in the social context, In this case the person feels that There is nothing in common between his personal and social values and become indifferent to social values and norms and mistrust (reducing social integration), therefore feels that Social destiny is related to force foreign structures. When above attitudes were created in person. The individual loses his performance and feels that cannot have a role in the development and future of the society. So public health have an important factor in the acceptance of social norms that through the Strengthening the

social capital, a person can face with the challenges of social life and deal with them and have superior performance in society. Since social capital and trust dimension and networking capacity is effective on social health it is necessary to increase the amount of trust of the students than other members of society and social institutions that one way of that is providing clear information from the institutions responsible for and attention to the wishes and needs of young people. Providing appropriate conditions for students to participate in different levels, providing recreational facilities, Student sports at the university level, especially the home environment, provide the Jolly fields and mobility for students, to young people with gathering in these places in addition to the benefit of physical health, social psychological and social interactions, and their sense of oneness with each other.

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## ARCHITECTURE FOR WELL LIVING NOT WELL BEING (FEASIBILITY OF ACCEPTANCE RATE OF COMMON LIVING ENVIRONMENT OF OLD PEOPLE AND YOUNG ORPHANS)

<sup>a</sup>MOBINA ROUHI, <sup>b</sup>TOHIDEH HAMED, <sup>c</sup>ALIREZA MEMARIAN

<sup>a</sup>Assistant Professor, Department of Architecture, Islamic Azad University, Mahmudabad branch, Iran.

<sup>b</sup>Student of Sariyan Higher Education Institute, Architectural Engineering, Sari, Iran.

<sup>c</sup>PhD in architecture education, West branch, Islamic Azad University, Tehran, Iran.

Email: <sup>a</sup>M.Rouhi@srbiau.ac.ir, <sup>b</sup>Tohidhamed90@gmail.com, <sup>c</sup>Alirezamemarian2000@yahoo.com<sup>3</sup>

**Abstract.** In this research, methods such as studying related papers, field observations and SWOT were used and after receiving 30 questionnaires with opinions of experts in architecture and psychology and jobs related to teenagers and old people in wellbeing organization and other organizations in Astara and Sari cities, the final results have been achieved. After conducting studies and obtained results of strategic evaluation matrix, it was observed that creating common living environment of old people and young orphans provides high capabilities and developmental attempts dominate over non developmental attempts and this indicates the approach (SO). With strategy (SO) it is possible to design centers for old people and young children to live in a safe environment, away from the disturbing.

**Key words:** old people, young orphan, wellbeing, architecture, common living environment

### 1 Introduction

The family is the first environment in which human can be trained and educated to cope with life's problems. (Mosalae et al., 2000) along with the family, life will be meaningful. The meaning of life is achieved through morality that leads to meet the needs and talents of human nature. (Ali Zamani and Ghafourian, 2010) certainly different generations in the family, is one of the reasons for this evolution. Unfortunately, in our own lives today, generally we cause the collapse of this valuable environment rather than environmental factors. In recent years, sending old people to nursing homes has increased. It is important that why such a place is considered as a "final sign of failure" for old people. (Salarvand et al., 2007), some old people, because taking care or getting ride of family problems and some are forced to find accommodation with family care giver in nursing homes. (Salarvand and Abedi, 2008). It should be kept in mind that old age is a sensitive period of life and considering the problems and needs of this stage is a social necessity. (Shokrollahi and Tabassi, 2012).

Part of the future force of society wanted and unwanted are fostered away from the family. For example, fostered children do not experience families emotionally. Although the behavior of orphanage and responsible in terms of discipline, proper exposure and logical constraints, responsibility, cooperation and goal setting look like family environment; (Khodabakhshi Koolae, et al., 2014), but still differ from the family (Khodabakhshi Koolae, et al., 2014). A normal teenager can suggest his opinion to buy shoes but a fostered one should obey rules of orphanage (Khodabakhshi Koolae, et al., 2014). This is only a small corner of the wants and needs of fostered and orphaned teenagers at the age of puberty. They grow up in a predictable environment full of "characters", gain personal identity, local identity and emotional security of their environment. (Hannachi and Azad Armaki, 2012). No doubt, failure to achieve social skills can provide significant damages on their emotional, psychological and personality balance. (Yeganeh, 2014).

For old people, home and past, are everything, but if living in a nursing home is the best choice, it is required to take actions to improve the quality of service. (Mokhtari and Ghasemi, 2010). So behaviors appear to satisfy the needs, hence understanding

human needs for environmental design is considered important. Architects in their design need a model of "human needs". (Matlabi, 2001). Sense of place is a sophisticated concept of emotions and attachment of human in adapting to the environment caused by human use of place. On the other hand, manner of people's needs, their expectations of place are considered important factors. In meaning group, identity and beauty and at the level of activities, social interaction, sense of community and satisfaction are obvious. (Falahat, 2006)

Undoubting, the environment is an influential factor. Man placed in everywhere that feels live with it, because the man is alive with residence. (Barati, 2003) This comes from two-way communication between human and the environment. Outstanding influential factors of environment on human are symbols, icons, sound and voice, light and their origins which these are material dimension and their effects can be considered and examined in identity, personality, sense of belonging to the place, comfortable feel, safe feel, humiliation and spiritual note and spiritual meanings. The most outstanding aspect which can introduce apparent and the effects of these factors them simultaneously, is the quality of space. (Taghizadeh:66,2002) for example, providing proper conditions aspect of lighting inside the place through the windows indicate other aspects such as rate of view from inside to outside for people inside the place during the day, as well as from outside to inside to control the view and the privacy of place. Also conditioning and heating in warm and cold seasons are considered perfectly. (Pourdeihimi and Haji SeyedJavadi, 2008)

Architecture appropriate for teens should meet their emotions. They kept their world of imagination and reality and enjoy their moves and elegance in color, light, sound, smell, touch, texture, volume, movement, form and rhythm of surroundings (Hanachi and Azad Armaki, 2012). They love playing and game and pastime and being in fun grounds, but their mental and physical health is resulted when their relationship with nature and themselves as part of nature is supervised perfectly. (Mehdi Nejad et al., 2012)

In recent years, the need for more communication between children and the old people is emphasized. Holding programs such as visiting nursing home for old people, painting about old people, eating food beside them can promote relation between old people and children and also social behaviors of children and make old people honor and respectful and value and respect old people and obtain a better understanding of the process cycle. (Adib Haj Bagheri and Amin Alroyae Yamini, 2011). These activities in the upper grades and more mature also are applied to adolescents. Growth of potential talents of person based on the physical and social world of which he is its member is formed certainly. (Azad, 1995)

According to studies, when young people see the wooden door of a traditional building with its old staircases, describe it positively. This is a sign of the ability of traditional Iranian architecture (Hanachi and Azad Armaki-95-2012). It is important because old people in unique and unusual environments suffer from nervous spasm and intense shaking (Pourjafar et al., 2010). Evidently, necessary architecture of both generations connected closely. So, maybe it can meet the similar needs. Beliefs and issues like this can generate common sense between them. (Kamel Nia, 2010)

The goal of this study is showing the importance of human and its emotions and for example it studies two generations such as old people and teens who live away from families for several reasons. Teens in critical and challenging period in their lives follow learning and real love. On the other hand, old people remain health who continue their daily activities (ShebaniTaziji and Pakdaman, 2010). Feeling useful member

in family and community is important for the old people (Mickaeili, et.al., 2012). In general, every society needs young people with the experience to survive and to have such young people; we need experiences of old people. As long to say "wisdom from the old people, fight for the young people".

Well-being is the same as well living, but with different approaches over time in common sense. An attitude that compassion is important than trying to make a beautiful and ideal life. We know that living environment, particularly its architecture has effective role in conveying a feeling of security, importance and acceptance significant which it is a reason to being, whether for neonates, children and adolescents, the old people and those who need to care compassionately. Certainly, it is better they be the initiators of a positive change.

In this exclusive study, it is intended to focus on old people (experiences) and adolescents (at the age of puberty and the formation of characters and personality), from the architectural and psychology points of view, steps be taken to improve their lives and the way to welfare becomes real. In this order, feasibility of acceptance rate of common living environment of old people and young orphans is considered to achieve following results:

- 1) How much it is possible to have capabilities in common living environment for old people and orphaned young?
- 2) How much you consider limitation in having common living environment for old people and orphaned young?

## 2 Theoretical principles

### 2.1 Welfare Organization

After studies and researches of great martyr dr. Mohammad Ali Fayazbakhsh, Welfare Organization under the law dated 14 July 1980 and in order to fulfill the provisions of Articles three, twenty-first and twenty nine of constitution of the Islamic Republic of Iran, from merger of 16 organizations, institutions, foundations and associations was established to provide services and non-insurance support measures and preserving the values and dignity of human, and rely on public participation and close cooperation with relevant organizations, to expand rehabilitation services, support, rehabilitation and prevention of disability and social damage and help to provide at least the basic needs of low-income groups. In July 2011, based on the integration of the three Ministries of Cooperatives, Labor and Welfare and Social Security, Welfare Organization joined under the Ministry of Cooperatives, Labor and Social Welfare. (Www.behzisti.ir)

### 2.2 Outlook Document

Based on text of outlook document in the visions of the country in 2025, having a healthy, productive and acceptable quality living, free of disease and disability, liability is a public right that the governments have responsibility about it and is pre-condition for achieving sustainable development. To achieve sustainable development, certainly health people plays a central role and obviously protecting and improving human health, requires an efficient health system. (Alviri, 2003)

### 2.3 Old people

he or she has more than 60 years old and needs to care due to side effects of aging and physiologic changes. There are three groups aspect of age such as old man (60-70) and middle (71-80) and old (81 years and over). As well as, aspect of dependency rate, there are three independent, semi-independent and dependent old people.

### 2.4 Types of care centers for the old people

Four types of centers in welfare organization are dedicated to old people (in private):

**1) Day and night old people rehabilitation, care centers:** providing health care services, rehabilitation services, including medical, physiotherapy, occupational therapy, speech therapy at all hours of day and night to old people.

**2) Daily rehabilitation and training centers for old people:** providing professional and social and medical training and rehabilitation services in some times of the day.

**3) the rehabilitation and care services centers of old people at home:** providing care and rehabilitation services, including medical services, physiotherapy, occupational therapy, speech therapy and counseling psychologists and social workers to old people at home on a daily basis or boarding.

**4) Old people rehabilitation services centre:** presenting and providing rehabilitation services, including medical services, physiotherapy, occupational therapy, speech therapy and counseling psychologists and social workers for old people at home as well as at least one of the two daily or boarding centers.

Each of above centers is established under permit of welfare organization by legal and real persons and presents its services under this organization. (www.behzisti.ir)

### 2.5 Adolescence

Adolescence is a period of transition from childhood to adulthood is the developmental processes during adolescence, especially among psychologists there is no a complete consensus in this regard. They know this course of thirteen to fourteen years, but recent work in psychology usually indicates ages 11 to 13 and 18 to 20 years of age is taken into account as adolescence. (Lotfabadi, 2013)

### 2.6 Orphaned teenagers

adolescents who have been deprived of effective supervision and competent parents permanently or temporary reasons.

### 2.7 Mehr centers

centers under support of governments which foster orphaned children day and night and with different sex and age until providing better conditions for them in the society.

### 2.8 Some joint activities of old people and adolescents

Since that adolescent forms the highest part of the society and their health is effective in improving public health, consequently using environmental psychology can be effective in mental health and welfare of young people and in improvement of health in the society (Saffari Nia, 2011). Studies have shown that if somebody during maturation period loses his parents or member of his family, he will be sensitive respect to depression. (Y: www.prozfe.com).using experienced counselors in these fostering centers can be effective and they can protect children and teens against environmental pressures (Fayaz and Kiyani, 2011).

There are always ways to achieve physical and mental health. Sports spaces as one of the main spaces have educational goals as well (Hanachi and Azad Armaki, 2012). Physical activity and exercises are considered important factors in minimizing stress in all stages of human life and strengthen personal characteristics and personality and mental health and social interactions (Abdoli et al., 2009). If we provide these people more and better measures to encourage them to do physical activity and exercise, not only physically, but mentally they will

be strengthened (Ansari Jaber et al., 1997). Music therapy needs proper space and physical facilities until subjects can do perfectly (Ali Zadeh Mohammadi et al., 2006). In other words, individual and group listening to music and singing reduce agitation in Alzheimer's patients effectively and in fact, the features and personal preferences are the best solutions (Zare et al., 2009). Training and education by group discussions can be effective in improving knowledge of subjects about puberty health (Shirzadi et al., 2013). Also participation in desirable and group activities increases interaction and social support. Researchers found strong evidence for a positive effect of doing leisure activities on improving mental health. (Sheibani Taziji and Pakdaman, 2010) also, loneliness is long-term in treatment centers and animal assisted therapy reduces it. The desire for this treatment is strongly associated with previous owner of the pet. (Banks & Banks, 2002).

### 2.9 Some common psychological needs of the old people and adolescents

It can be said that there is an inverse significant relation among spiritual attitude and positive direction respect to praying, goals of creation, idealism with depression intense. Also performing individual spiritual practices such as praying, trust and cognitive and behavioral levels are associated with a reduction in depression. (Ebrahimi, 2003), experts believe that religious beliefs and activities are more common among the old people than adults and as the age increases, dealing with religion is considered as a stronger predictor for greater health, happiness and satisfaction with life. (Peymanfar et al., 2012).

In general, the self-esteem increases in childhood and decreases in adolescence and gradually increases in middle-age and decreases in old age drastically. (Robins et al., 2002). Old people with lower age, lower income, unemployed, women and old people, who currently do not have any spouse, suffer from severe depression. (Kashfi, et al., 2010). Active life expectancy is lower for the poor than others; (Katz et al., 1983), the economic and social situation of old people as residents of a nursing home has a significant impact on their self-esteem. (Shahbazzadegan et al., 21: 2009). So that the variable of optimism has a direct effect on mental health and an indirect effect on life satisfaction and on the other hand optimism effects on feelings and emotions (Poursardar, 2012), with increase of loneliness, life satisfaction is declined. (Kichaki et al., 2012).

In fact, women have experienced loneliness more than men. (Jones et al., 1985). Social protection has been effective for both men and women (but a little social protection has been better for men than women). (Motamedi Shalamzari et al., 2012). Adult with high hope consider other people as support and overcome challenged in their life and experience greater happiness in their life and are more satisfied. They can also develop this internal discourse in which "I can finish it; I should not fail and be disappointed." They see their success rather than their failure. (Farhad et al., 2009).

### 2.10 Living environment of old people and children in well-being organization

Data obtained from living environment of old people and orphaned children in recent studies show that many standard institutes have not proper educational facilities especially in western provinces of Iran (Tajar, 2011). So, successful centers should be considered as patterns and even more possibilities

created. This can be the result of efforts of philanthropists, successful management and delivery optimal services and even clean and beautiful physical space of these centers (Sajadi and Biglerian, 2006). Fostering centers include education and many educational workshops are presented to children and teens and moreover, well being organization hires psychologists and educational sciences experts to protect children (Khodabakhshi Koolae, et al., 8: 2014). Promoting mental health of teens In addition to the potential benefits in health, is one of the effective methods in preventing risk behaviors but in Iran like other developing countries, mental health studies and researches are in primary stages (Shkiba and Ziyae: 59, 2012).

### 3 Research background

Unfortunately, in direct contact with this research, there is no particular literature. Only one example of shared living environment (old people and disabled people) in Kashan has been studied: Adib Haj Bagheri and Amin Alrayaye Yamin, 2011, in their article entitled "Experiences of primary school children in Kashan about nursing home," indicate: students of this study had not positive perception of the nursing home. Remoteness of nursing homes and keeping disabled people in its vicinity was involved in creating this perception. Isolation of the disabled people care centers from old people can be a better experience for the visitors. This separation in higher value degrees has an important role in improving mood the lives of old people in sanatorium.

It is interesting that in a similar thesis entitled beyond the living (Ghavami Masoule, 2000) it has been concluded that due to the conducted studies and finding proper answers for spatial relationships, practices, climate and welfare of old people and orphans, a shelter to live can be designed.

### 4 Materials and Methods

This research based on the nature and purposes is a descriptive analytic and applied research. The method of this study is field research and using SWOT technique, variables were investigated and tested. This research was conducted by library and field methods and it was carried out through means such as (interviews and questionnaires), to collect information and material. Research statistical community includes all experts and professors in the fields of architecture, psychology and other related professionals with teens and old people in well being organization in Astara and Sari cities which using interviews, at first the matrices for strength and weakness points and opportunities and threats matrices were provided and then based on determined variables, a questionnaire provided with Likert scale II means very low and 5 means very high) and showing importance coefficient in range of 1-4. Questionnaires were distributed and completed among 30 experts and professors in the fields of architecture, psychology and other related professionals. At the end, the results were processed and analyzed using SWOT technique. Also of subjects, the opinions of 4 or 5 experienced experts were used as ranking and other opinions to estimate primary coefficient in tables.

#### 4.1 SWOT technique (SWOT)

One of the techniques that is used a significant part of the design process, is SWOT technique or matrix that sometimes is called simply (TOWS).

Table 1: Definition of internal and external factors in SWOT technique (SWOT)

Internal factors	strengths	features that help us to achieve our goals and have a positive effect and therefore all measures should be designed to strengthen these characteristics
	Weaknesses	Features with negative effects and all measures should be designed to weaken or reduce these characteristics
External	Opportunities	Situations which because of the potential positive effects can help us to achieve these goals and

factors		along with strengths points facilitate goals achievement
	Threats	Situations which prevent us to achieve these goals, so all measures need to convert these into opportunities

In brief, the technique is a means for analyzing the situation and developing strategy, in this order, concepts like "strategy", "internal environment", "external environment", "strength", "weakness", "threat", "opportunity" can be considered as basic concepts of this technique. (Golkar, 2006).

Strategies have been identified in four separate sections and a combination of internal and external factors respectively. This means that:

strategy (SO): utilize opportunities with proper strength points.

Strategy (WO): remove weakness points with using opportunities utilization.

strategy (ST): deal with external threats by identifying the most important internal strength points.

strategy (WT): while removing weakness points, threats are avoided.

#### 4.2 Findings analysis with SWOT

After studying related papers and field observations and opinions of experts in architecture and psychology and jobs related to teenagers and old people in well being organization and other organizations in Astara and Sari cities, all internal factors (Strengths and weaknesses) and external factors (opportunities and threats) were classified as below and strategies of contrasting them together to remove and reduce vulnerabilities and threats and take more advantage of the opportunity and strengths of the feasibility of the adoption of common living environment for old people and young orphans were presented.

Table 2: Statistical evaluation of strength points

item	variables and questions	primary coefficient	Secondary coefficient	Rating	final coefficient
Strengths	1. enjoying the rich experiences of old people	109	0.082	4.75	0.389
	2. The increase of useful feeling in old people	111	0.084	4.50	0.378
	3. loneliness decrease in old people and young orphans	107	0.081	4.50	0.364
	4. creating solidarity between generations as in the past which it is absent today	105	0.077	4.50	0.346
	5. Reducing the chance of premature aging in old people	96	0.072	4.25	0.306
	6. unflinching love for old people and support young people at puberty	104	0.078	4.25	0.331
	7. ideal breeding ground for young talent	97	0.073	4.25	0.310
	8. living in an environment much like The family	93	0.070	4.25	0.297
	9. respect together (respect for elders - considering demands of children	104	0.078	4.25	0.331
	10. Increasing life expectancy in old people and young orphans	103	0.078	4	0.312
	11. Increasing the level of community mental health	102	0.077	4	0.308
	12. Removing problems of young people by consulting with old people	96	0.072	4	0.288
	13. different attitudes and satisfaction towards aging in adolescents	92	0.069	3.75	0.258
	Total	1319	0.991	55.25	4.218

Table 3: Statistical analysis of weakness points

item	variables and questions	primary coefficient	Secondary coefficient	Rating	final coefficient	
	14. dependency of two generations and trauma caused by the death of old people, adolescents adopt	95	0.103	3	0.309	
	15. inconvenience and noise of adolescents for old people	112	0.121	2.75	0.332	
	16. impatience of old people to tolerate aggressive behavior of adolescents in puberty	109	0.118	2.75	0.324	
	17. Adolescents pressure on old people and lack of attention to their aging and fatigue	96	0.104	2.75	0.286	
	18. High expectations of adolescents against old people and related problems	96	0.104	2.50	0.260	
	19. different needs of teenagers and the related problems	112	0.121	2.50	0.302	
	20. aggression in adolescence and the possibility of dealing with old people	101	0.109	2	0.218	
	21. The old thinking of some old people lack of understanding the present time young people	104	0.113	2	0.226	
	22. The adolescent depression due to the presence of old people	95	0.103	1.75	0.180	
		Total	920	0.996	22	2.437

Table 4: Statistical analysis of opportunities

item	variables and questions	primary coefficient	Secondary coefficient	Rating	final coefficient
opportunities	23- supportive role of government	113	0.111	5	0.555
	24. use of psychologists (training collisions and reactions, psychological)	119	0.117	4.75	0.555
	25. Using experienced architects to design a common environment and perfect with the mood and needs of both generations harmonically	119	0.117	4.50	0.526
	26.promoting positive thinking about environment of old people asylum and minimizing their fear to live there	111	0.109	4.50	0.490
	27. attention of society to these centers as different approaches in asylum and orphanage	118	0.116	4.50	0.522
	28. public donations to promote both the generation	117	0.115	4.50	0.517
	29. occasional visiting old people family from the center and creating proper family environment for young people	109	0.107	4.25	0.454
	30. creating communication and friendship between the young people and old people family	108	0.106	4.25	0.450
	31. Giving more responsibility to old people by the authorities to support young people	101	0.99	4	0.396
Total		1015	0.997	40.25	4.465

Table 5: Statistical analysis of threat

item	variables and questions	primary coefficient	Secondary coefficient	Rating	final coefficient
threat	32.insufficient public informing about advantages of common living environment of old people and young orphans and wrong thinking in this regard	104	0.179	3.25	0.581
	33. The lack of interesting of old people and young orphans in having a common housing	98	0.169	3.25	0.549
	34. The general negative attitude towards the joint housing	95	0.164	3	0.492
	35. Lack of community support	91	0.157	3	0.471
	36.rejection of such centers by family of old people and young orphans	94	0.162	3	0.486
	37. The lack of interesting of well-being organization about this plan	96	0.166	2.75	0.456
Total		578	0.997	18.25	3.035

5 Results

studying data of Tables 2, 3, 4 and 5 based on the value or coefficient of each parameter indicates that due to evaluation matrix of strength and weakness points, the advantage of strength points with the final value 4.218 is more than weakness points with the final value 2.437, so it can be concluded that the creation of a common living environment for the old people and young orphans has high capacity. The advantage of

opportunities with the final value of 4.465 over threats with the final value of 3.035 shows the superiority of developmental works against anti-developmental works. Therefore, due to the existence of strategy (SO), proper strength points should be used to create shared living environment for old people and young orphans created and to take advantage of opportunities. The results of the Strategic SWOT factors evaluation matrix are drawn on the figure 1.

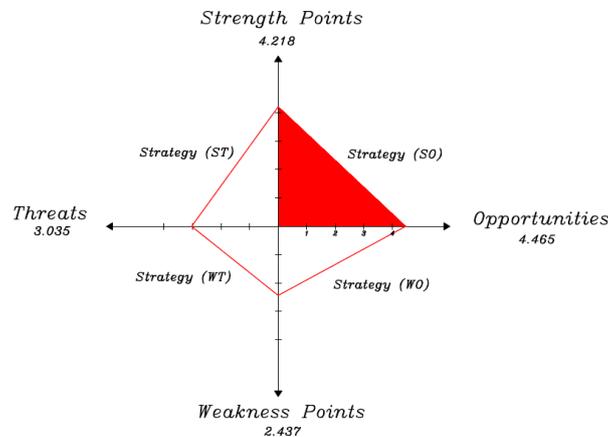


Figure 1: Strategic SWOT factors evaluation matrix

## 6 Discussion

In today's society, the gap between generations has increased and the old people are sent to nursing homes. On the other hand, orphaned children experience intangible environment away from family. Old people are sad because of negligence of their children and young children are sad due to lack of parental attention. On the other hand it should be noted that our society is a young society, but it goes toward aging.

Children of any age need firm support of their families. This requires sensitive age of puberty in adolescents and is more important. They are in a period engaging full of contradictions, conflicts, mental, choices, which play a major role in their future. How orphaned children compensate lack of friendly advice in their families? Can we provide better solutions in this regard? How much governments consider their inspired identity, dignity, excellence of character and life? When these children free from heavy pressure of orphaned children title (mentally and identity)?

And old people...who spent their whole life and youth for their children, why they don't have future with their children? Of course, this attitude is not true for all old people and their families. Sometimes old people experience a better life in nursing homes, but such an approach with a strong tradition of family in our society is hard to believe. Old people who not long ago were respected, and the reason why in the present family unity can not establish close relationships with their grandchildren? Whether generations are not able to understand or respect together or people have found a use-by date? Do we think about our old age? What we have done, so that Salarvand and colleagues (2007) in their research entitled "spiritual experience of old people in nursing homes mention that residence in nursing homes are as "final sign of failure". Why the heroes of yesterday, today are far away from us?

The results of the SWOT method in Sari and Astara cities, strength points(218.4), weakness points (437.2), opportunities (465.4) and threats (035.3) that reflect the approach (SO), (with proper using strength points, exploiting the opportunities).

In the ranking of the strength points, taking advantage of the old people with rich experiences with 4.75 is the first strength point in view of respondents, respectively. Since that this research is allocated to common living environment of old people and young children and young people reach puberty, it can refered to research and scientific paper of Shirzadi and colleagues (2013) entitled studying the effect of education by group discussion in promoting health in puberty of the girls in well being organization of Tehran which indicates that, education by group discussions affect positively on awareness of subjects. Old people can transfer their experiences in this regard and also the results of research of Fayaz and Kiyani (2011) entitled "Evaluation of Mental Health for fostered children of shahid Dastgheyb and shahid Namazi in Shiraz" indicate that children and adolescents living in these places should be communicated based on skills, ability to self-respect, assistance, skills. Using the experiences of old people can be effective for teens due to gaining experiences and also increasing the usefulness of old people.

The second choice aspect of importance among strength points with ranking 4.50 is allocated to factors of increase of usefulness in old people, lowering loneliness in old people and orphaned children and creating relation between generations. This finding has been reported by other researchers. Michaela and colleagues (2012) in their research entitled 'comparing loneliness, mental health and usefulness in old people indicate that people in these centers lose their abilities and decision making and eventually they feel instability and dependency. Usefulness of old people increases their reliance and power.

Also Shakiba and Ziyae (2012) in their research entitled 'comparing mental health of female students of well being centre

with high school students in Zahedan city' concluded that the role of family is important in mental health and in different studies the effect of social and economic situations of families on children's mental health has been explored and emphasized perfectly. In sanitarium and orphanage due to lack of family, these two generations overlap together. About relation between generations, the result of research of Haj Bagheri in year 2011 entitled experience of primary school students of Kashan city in visiting old people centre shows that eating and spending time with old people increase the relation if children and old people and improve social behaviors of children. In the article of Kashfi and colleagues (2010) as "the relationship between social and demographic factors and prevalence of depression among old people over 60 years in nursing care facilities covered by welfare center in Shiraz", the results suggest that the activity of old people effects on depression and unemployed are more depressed than employed.

Based on the answers of respondents in ranking opportunities, supportive role of government with rank 5 is the first priority. Mo'tamedi Shalamzari et al. (2002) in an article titled "studying the Role of social support on life satisfaction, general health and loneliness among the old people over 60 years" have come to the conclusion that social support, especially emotional support of old people decreases their loneliness and increases the level of their general health. Fayaz and Kiyani (2011) in their article titled "Evaluation of Mental Health for fostered children as a result of a joint state indicates that the main goal of mental health is prevention of disease and behavior disorders and promotion of health.

The second opportunity is hiring psychologists with score 4.75 and as the results of this research using experienced councilors can protect children in these centers. Also other results of this research, the third opportunity in view of respondents with ranking 4.50 indicated that, it is better that the spaces of these centers should be resembled with family and other opportunities in the third rank include promoting positive view and positivism about sanitarium and reducing anxiety and fear in old people to live there and also society must consider them perfectly. Adib Haj Bagheri and Aminoroayae Yamini (2011) in their research entitled experience of primary school students of Kashan city in visiting old people center indicate that in some sanitariums, mental and physical disabled live with old people with negative consequences for old people and it is necessary to separate their places respectively.

In studying the importance of weakness points regarding answers, the dependency of both generations and trauma resulted by death of old people or adapting young people with the third rank is placed in the first rank and this shows the dependency of both generations respectively.

In the lowest rank of weakness points, young hood violation and aggression and interaction with old people and old thinking of some old people and neglecting present young people in the second rank and depression of young people due to living with old people with a rank as 1.75 which they are considered as the main weakness points of this research but finally ignored perfectly.

## 7 Conclusion

The main hypothesis of researcher (H1- it seems it is possible to have common living environment of old people and orphaned young people) is proved and this means that it is possible to establish centers until old people and young people live together. Old people remain valuable, young people think valuable and society becomes valuable. All human kinds have been created for effective living, so in the nature of all human kind there is an endeavor to change the world. Children, adolescents, young people, old people and elderly with new ideas, endless endeavor and a heart full of energy, a comprehensive overview and depth of experience in the world come together. Building a society based on united foundations

will be remained forever. Let be people as researcher mentioned them.

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## EFFECT OF HUMAN RESOURCES COSTING (HUMAN RESOURCES ACCOUNTING) ON PROFITABILITY OF LISTED COMPANIES IN STOCK EXCHANGE

<sup>a</sup>BIJAN ABEDINI, <sup>b</sup>SAJAD MAHDIYANFAR

<sup>a</sup> Faculty Member of Hormozgan University

<sup>b</sup> MA Student, Islamic Azad University Qeshm Branch

Email: <sup>a</sup>bijanabedini.ostd@gmail.com,

<sup>b</sup>sajad.mahdiyan117@gmail.com

**Abstract.** The objective of this study is to examine effect of human resources costing (human resources accounting) on profitability of listed companies in stock exchange. Statistical population of study consists of companies accepted in Tehran Stock Exchange that 94 companies are chosen as sample size. Researcher hypotheses were analyzed using bivariate and multivariate linear multiple regressions as well as F, and t tests. Results obtained from hypotheses testing indicated a significant relation between dependent variable of firm profitability and independent variables including human resources costs, human resources costs ratio to total assets, human resources costs ratio to Net Operating Profit and human resources costs ratio to Net Operating Profit after Tax (NOPA).

**Keywords:** profitability, human resources accounting, human resources accounting ratios

### 1 Introduction

Human resources accounting is one of important issues considered in Iran. Since users of financial statements need information about all economic resources used in economic entity, the human resources employed in organization are considered by these users. Investors, who are users of financial statements, need some information about human assets value and changes in these assets during financial period to make right investment decisions. Units' managers, who are financial information users, need such information to plan and control human resources. Moreover, human resources accounting is a method for evaluation of management performance in terms of benefiting from human resources. In all organizations, skilled and specialized staffs are scarce resources and all managers of economic units and social institutes search for such staffs to promote their performance levels or tend to spend extra costs to train human resources in order to achieve the optimum level. Obviously, lack of information about economic value of such scarce resources or information about the division of the spent costs into asset account or cost of period would lead to inability to correct or employ these resources properly (Abachi, 2013).

In today's organizations, employed human force not only is able to do general tasks but also can provide professional services, which are value creator more than before. Therefore, it is required to have a system or instrument capable of determining real value of services provided by human resources as intellectual capital. Majority of economists emphasizes on formation of physical capital and human capital as the major determinant of economic growth and development. New growth theories focus on the role of human capital in economic growth and thought and opinion of trained human forces are introduced as the basic factors of economic growth and development within expansion of production technologies. In fact, it can be stated that physical capitals will be productive if the country has required level of human capital.

Moreover, traditional financial statements that are based on the accounting accepted principles just indicate the value of physical assets of organization not providing the level of investments in recruitment, training and maintenance of this precious resource in frame of monetary measures. In traditional accounting system, all of the money spent on human resources are considered as cost and mentioned in profit-loss statement; in contrary, since human resource is treated as income and investment not cost in human resources accounting system, the depreciation cost of human resources is considered as cost in profit-loss statement and the remained costs spent in field human resources are inserted in balanced sheet under the title of human resources investment. Also, all of money spent on human resources are

considered in column related to assets separately entitled investment in human resources, because the money spent on human resources is treated as investment not cost in an organization (Farmahini Farahani, 2011). Accordingly, such attitude in accounting system would lead to transparency of accruals written in balanced sheet and transparency of profit and loss statement of organization.

In this study, the author tends to examine the effect of human resources accounting on profitability of companies accepted in stock exchange.

### 2 Research Background

Johanson and Holmgren (1998) conducted a study entitled "the relation between human resources accounting and concepts of balanced scorecard system" in which, they considered the importance of human resources accounting in performance evaluation and providing strategy map and scorecard. Results obtained from their study indicated that application of human resources accounting is important in factors of balanced scorecard in particular the factor related to employee learning and growth.

Bullen et al. (2000) presented a paper about the relation between human resources accounting and concepts of balanced scorecard system. They concluded that application of human resources measures has a significant effect on evaluation of growth and learning factor as well as long-term success of firms.

Turner (2000) presented a theoretical paper about the effect of human resources accounting of organization on growth and learning. He concluded that information of human resources accounting in effective in supervision on employee performance and human resources creation and evaluation by managers.

Stovall (2001) conducted a study entitled "concepts for theory and practice in human resources accounting" in which, shortcomings of traditional accounting systems and importance of reporting of accounting information related human resources in companies. Results obtained from this study showed that knowledge understanding of demanders of human resources accounting information has not been properly developed in terms of human resources valuating models. Stovall recommended changes in field of educational opportunities in human resources scope.

Flamholtz et al. (2002) defined human resources accounting as an attempt to identify and report investment in human resources, which is expected to create extra profits for the firm in future. According to this definition, human resources of each organization can be reported as assets in financial statements if they can increase future profitability of company through improving production and providing goods and services.

America Association of Certified Public Accountants (1983) defines human resources accounting as follows, "human resources accounting is a process to identify and measure data related to human resources of companies through exchanging this information with beneficiaries in order to contribute to decisions made by users inside and outside of the country". Human capital can be defined as knowledge acquired by individuals obtained through life and used to produce and present more qualified good and services (Afiouni, 2007).

Verma and Due (2008) conducted a study entitled "human resources valuation" in which, they employed current measurement approaches and expected advances to determine acceptance level of human resources valuation models. In this research, questionnaire was used for a sample consisting of 370 American firms. Results obtained from this study showed that

majority of these firms could perceive these models and consider human resources information as a key factor in decision-making.

Deem (2009) studied the relation between organizational culture and practical application of important factors to evaluate performance of governmental organizations. Results obtained from statistical analysis of this study showed that the most important criteria used in governmental organizations for performance evaluation are as follows: 1- employee learning, 2- organizational learning, 3- employee stability, 4- employee satisfaction, and 5- positive attitude toward employees.

Professor Hashemi (2005) conducted a descriptive-analytical study entitled "analytical study of human resources accounting models emphasizing on selective models in companies accepted in Tehran Stock Exchange". Analysis of obtained data shows that possible application of mentioned methods is evaluated at low and average level and among existing models, the model of acquisition cost is chosen as the best applicable model from the perspective of studied members.

Gholami (2005) studied barriers and problems in implementation of human resources accounting in Iran. In this research, awareness level of financial information users, information providers, professional and academic associations of accounting was examined in field of human resources accounting. Results obtained from this study indicated that the major reason for lack of human resources accounting implementation in Iran is related to lack of information among users and accountants; also, professional and academic associations have not conducted effective actions to introduce this kind of accounting.

Namazi and Jamee (2008) studied the role of human resources accounting (costing) information in factors of balanced scorecard of companies listed in Tehran Stock Exchange. They obtained the following results:

Human resources accounting information (costing) is indeed the application of concepts of accounting information system at the range of human resources. This accounting method is a criterion for costing and measurement of human resources as the main resource in every company. Hence, the objective of this paper was to examine the role of accounting information (costing) of human resources in factors of Balanced Scorecard System of companies of Tehran Stock Exchange. This study was conducted for time interval from 2004 to 2008 and consisted of 96 companies. Results obtained from hypotheses testing using "Partial Regression" implied that there was a positive significant relation between human resources accounting (costing) and factors of Balanced Scorecard System (considering firm type and size, education and experience level of human resources managers) at both indexes and companies levels. Moreover, findings of this study at indexes level indicated positive effect of firm type and size on accounting (costing) equation of human resources and financial factor indexes (net profit, management of costs and total income), customer factor (return of sold product, and after-sale service), and internal process factor (bad debts and cost of maintenance and repair). Also, firm size and type, education and experience level of managers could positively affect human resources, growth and learning factor indexes (job quality, empowerment, job satisfaction, and improved employee training).

Almasi and Sepahban (2009) conducted a study to examine the "relation between investment in human resources, physical investment with economic growth of Iran during 1971-2005. They obtained following results: according to the standard Granger Causality Relation, there was a unilateral causal relation between physical capital and economic growth and there was a bilateral Granger causal relation between human capital and economic growth. Results obtained from short-term and long-term Granger Causality Test using error correction model indicated a bilateral Granger causality relation between economic growth and human capital, a unilateral Granger causality relation between physical capital and human capital; also, a unilateral Granger causality relation between physical capital and economic growth in short term and long term. Therefore, increased number of trained human resources can increase supply of specialized, researcher, and entrepreneur labor force. Definitely, such trained and skilled labor force can provide more rapid economic growth through innovations and optimal application of financial facilities in country.

Talebniya and Ghorbani (2010) conducted a study to examine "feasibility of human resources valuation models in Audit Institutions members of Official Accountant Association of Iran" and obtained following results:

"In this research, feasibility of historical cost model application and economic value model were considered in Audit Institutions members of official accountant association of Iran. The purpose of this study was to measure human resources and to report them as asset quantifying value of human resources using mentioned models. This study was a theoretical-descriptive research in which, questionnaire was employed for data collection. Statistical population consisted persons with MA or PhD degree in Accounting and simple random sampling method was used. Results obtained from this study indicated that application of these models was possible to measure human resources value; accordingly, human resources can be identified and reported as asset through quantifying the value provided by human resources based on monetary criteria."

Poormiri (2012) conducted a study to "calculate share of labour force, physical, human capitals as well as Research and Development (R&D) in economic growth of Iran during 1974-2007." The results of this study are as follows:

New growth studies indicate that internal factors of an economy such as human capital and R&D besides physical capital and technology can affect economic growth. The purpose of this study was to calculate the share of some factors such as human capital, R&D, unskilled labor force, and physical capital in GDP growth in 1974. In this research, the generalized Solow Growth Model 1 was employed. Information related to GDP, active population, physical capital, research budget of government, and consuming expenses in education sector were extracted from time-series data of Central Bank of Iran, Iran Census and Governmental Budget Center during 2007. Eviews software was used for calculation. Results indicated the effect of unskilled labor force, physical capital, human capital, and R&D on Iran's GDP growth was equal to 55, 3.28, 7.13, and 3% respectively. Results of other studied out of Iran show that the effect of unskilled labor force is low in developed countries, whereas, the effect of human capital and R&D was high (figure 1).

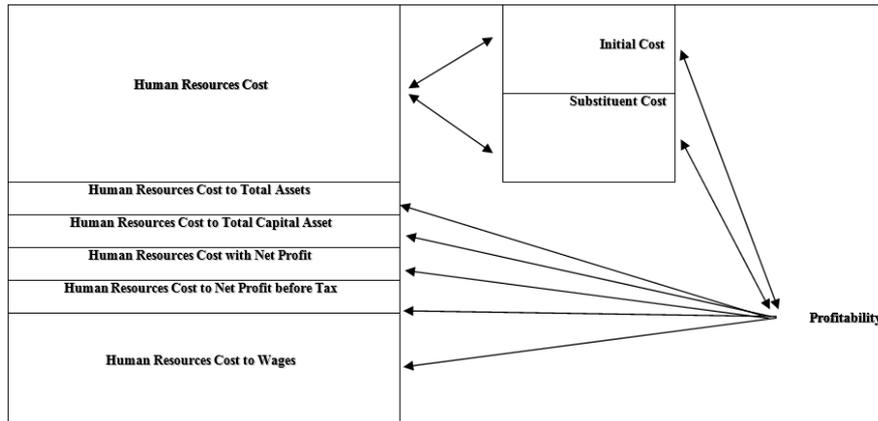


Figure 1. Analytical Model of Research

**3 Research Method**

This is an applied research in scope of Positive Researches of Accounting in which, multivariable regression method and econometric models have been used. Research hypothesis was tested based on the cross-sectional data and combined data. Statistical analyses were undertaken using SPSS, Eviews, and Matlab software. Statistical population of this study consisted of companies listed in Stock Exchange that had following conditions:

- 1) Company stock is exchanged in Tehran Stock Exchange during 2011-2014.
- 2) Transactional logo of company is not transferred to unofficial board.
- 3) Transactional logo of is active and is transacted at least once in year.
- 4) Financial year of company is finished at the end of March without any change in financial year during study period.
- 5) Financial information of company for studied period is accessible.
- 6) The company should not be included in financial mediation companies.

Table 1 indicates data and information existing in stock market during 2011-2014.

number of companies existed in stock market during 2011-2014	423 companies
number of companies not included in investment companies and banks	358 companies
number of companies with financial years ended on March	225 companies
number of companies, which their transactional logos have not been stopped more than 4 months	172 companies
number of companies with available information for research duration	97 companies
number of companies included in statistical population	94 companies

Library studies and note taking method were used as data collection methods and data summarization table was applied to conduct library study. To collect data related to human resources, a designed questionnaire was employed. This questionnaire was not filled out with individuals or companies

but it was completed using financial information of companies in accordance with accessibility of human resources information including cost of recruitment, selection, education, and optimization.

Table 2. Calculation of statistical methods and presumptions analysis

row	subject	method/test
11	descriptive statistics	mean, variance, standard deviation, summarization table, graphical charts
22	evaluation of independent and dependent variables	Kolmogorov-Smirnov
33	selection of panel and combined data	F-Limer
44	determining stochastic variables	Hausman
65	Variance examination	White
66	errors independency	Durbin-Watson
7	analysis of relationships	linear regression
8	parameters generalization	t value and F value

Hypotheses of this study are modeled in frame of regression relations; therefore, it is required to examine basic assumptions of these relations before testing these regression relations and analysis of their results. Hence, three vital tests about regression relations of study are examined at this study. These tests are as follows:

Normality test of research data: Kolmogorov-Smirnov test was applied in this study to test normality of data through SPSS18

software. According to this test, normal distribution of research statistical population was approved at confidence level of 95% if Sig of Kolmogorov-Smirnov table is more than 5%.

To test fitness of linear pattern and lack of unrelated points, scatter diagrams are used. Since these diagrams do not show a clarified pattern (for example, curved, diagonal, etc. diagrams), fitness of linear regression and lack of unrelated points is accepted.

Variance Consistency Test: the last important point about regression relations in this research is related to consistency of variances in residual diagram compared to fitted values. If this diagram determines a specific pattern, one of basic presumptions of regression will be questioned and it can be claimed that data scattering is stochastic. Pearson correlation analysis, which is applied to determine relation between two quantitative variables, can be applied in some cases in which, firstly, both variables are measured and recorded at one section of time (simultaneously) and secondly data distribution follows normal distribution.

#### 4 Research Variables

##### 4.1 Independent Variable

Independent variable of this research is related to profitability criterion. In this study, Return on Equity (RoE) is applied as profitability indicator calculated through profit net dividing by total equity.

##### 4.2 Independent Variables

**Human Resources Cost Ratio to Total Assets:** this ratio is calculated using human resources cost, which its calculation method is described above, and total assets of companies, which is obtained from financial information of companies.

Human resources accounting is a method to identify and report investment in human forces that are expected to create benefits excess of normal benefits for company in future. According to this definition, human resources of every company can be reported as asset in financial statements if they are capable of increasing future profitability of company through improving production and providing goods and services (Flamholtz, 2002). America Institution of Certified Public Accountants (AICPA, 1983) has defined human resources accounting as "a process to identify and measure data related to human resources of companies and exchange of these information with beneficiaries to help internal and external users with their decisions." Human capital can be defined as acquired knowledge of individuals obtained through life and used to produce and provide more qualified goods and services (Afiouni, 2007).

**Human Resources Cost Ratio:** to collect data related to human resources, Flamholtz Formula (1998) was used. In this method, a questionnaire consisting of questions related human resources cost of companies is designed and filled out through financial statements of these companies. This questionnaire was not filled out with individuals or companies but also it was completed using financial information of companies considering inaccessibility of some human resources information including cost of recruitment, training, and optimization.

This concept is obtained from the human resources cost ratio (in accordance with Holtz formula) to total assets of companies (Forooghi & Ahmad Nejad).

**Human Resources Cost Ratio to Total Assets:** this ratio is calculated through human resources, which its calculation method was described, and total assets of companies using financial information of companies (Independent variable).

This concept is obtained from human resources cost ratio (based on Holtz formula) to capital assets of company (Forooghi & Ahmad Nejad).

**Human Resources Cost Ratio to Capital Assets:** this ratio is calculated through human resources cost, which its calculation is described above, and capital assets of companies using financial information of companies (Independent variable).

This concept is obtained from human resources cost ratio (based on Holtz formula) to wages and bonus cost in company (Forooghi & Ahmad Nejad).

**Human Resources Cost Ratio to Cost of Wages and bonus:** this ratio is calculated through human resources cost, which its calculation is described above, and cost of wages and bonus of companies using financial information of companies (Independent variable).

This concept is obtained from human resources cost ratio (based on Holtz formula) to operating profit of company (Forooghi & Ahmad Nejad).

**Human Resources Cost Ratio to Net Operating Profit:** this ratio is calculated through human resources cost, which its calculation is described above, and net operating profit of companies using financial information of companies (Independent variable).

This concept is obtained from human resources cost ratio (based on Holtz formula) to operating profit of company (Forooghi & Ahmad Nejad).

**Human Resources Cost Ratio to before-Tax Net Profit:** this ratio is calculated through human resources cost, which its calculation is described above, and before-tax net profit of companies using financial information of companies (Independent variable).

##### 4.3 Cost Model of Flamholtz

In this study, information of human resources costing is considered as independent variables based on the acquisition cost model of Flamholtz (1998). The acquisition cost model, which is also called "initial cost", consists of a cost of recruitment, teaching and learning of employees. Acquisition cost can be divided into two groups of cost of employee attraction and recruitment, accost of employee teaching and learning (Flamholtz, 1998).

Acquisition cost of Flamholtz can be included in 7 clear accounts in accordance with following headlines:

1-Recruitment costs, 2- selection costs, 3-formal teaching costs, 4- non-formal teaching costs, 5-introduction costs, 6- in-service training costs, 7-development costs. These costs are depreciated based on matching principle. Hence, cost model of human resources acquisition of Flamholtz for a company is as follows:

$$TRChr = achr + tchr$$

**TRChr:** acquisition cost of human resources of company;

**achr:** cost of attraction and recruitment of human resources;

**tchr:** cost of human resources teaching and learning.

This model was applied in this study due to following reasons:

1. Application of this model is matched with accounting situation of Iran. Result obtained from studies conducted by Sheybani (1998) and Professor Hashemi (2009) approves this point.
2. This model is matched with accounting operations for assets evaluation.
3. Acquisition Cost Model of Flamholtz (1998) is a substantive method.
4. This model is more accepted by tax organization compared to other methods.
5. Some researchers named Hassam Ghorbani (2000) and Namazi (2009) have used historical human resources cost model in Iranian companies and this model has been accepted in Iran.

The author of present paper also studies on value of information of human resources costing based on the historical cost model.

This method was developed by Bozada (1997), William C. Pill, R. Lee Bramet, and Eric J. Flamholtz (1998).

**5 Research Mathematical Model**

$$Y = F(X_1 + X_2 + X_3 + X_4 + X_5 + X_6)$$

**5.1 Definition of Variables**

- 1) Y: profitability
- 2) X<sub>1</sub>: Human Resources Cost
- 3) X<sub>2</sub>: Human resources cost ratio to total asset
- 4) X<sub>3</sub>: Human resources cost ratio to capital asset
- 5) X<sub>4</sub>: Human resources cost ratio to cost of wags and bonus
- 6) X<sub>5</sub>: Human resources cost ratio to net profit
- 7) X<sub>7</sub>: Human resource cost ratio to before-tax profit net

**5.2 Definition and measurement of variables**

X<sub>1</sub>: human resource cost (independent), X<sub>2</sub>: human resources cost ratio to total assets (independent), X<sub>3</sub>: human resources cost ratio to capital asset (independent), X<sub>4</sub>: human resources cost ratio to cost of wages and bonus (independent), X<sub>5</sub>: human resources cost ratio to net profit (independent), X<sub>6</sub>: human resources cost ratio to before-tax net profit, and Y: profitability (dependent).

**5.3 Regression Model**

For this purpose, following regression model is used:

$$F = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \varepsilon$$

**5.4 Equation measurement**

Y is estimated using n-variable regression estimating parameters  $\alpha, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ .

**6 Findings**

Table 3. Descriptive statistics of research variables

	number	mean	med	standard deviation	minimum
logarithm of company profitability	375	3.4978	1.9184	5.49278	4.14
logarithm of human resources cost	375	0.6695	0.6834	0.22602	0.06
ratio of human resources cost to total assets	375	0.5755	0.5616	0.23225	0.06
ratio of human resources cost to capital asset	375	0.0941	0.0510	0.12238	0.00
ratio of human resources cost to wages and bonus	375	1.4093	1.9872	31.13576	219.21
ratio of human resources cost to net operating profit	375	5.9738	4.2525	5.60331	0.01
ratio of human resources cost on before-tax net profit	375	4421.9611	2324.5800	4371.54356	671.00

According to table 3, descriptive statistics of variables indicate that selected sample has enough diversity; hence, results obtained from sample can be generalized to the population.

Table 4. Results of Hausman Test (choosing between fixed and random effects)

mutual relation between variables	Chi-Square value	df	P-value	test result
the relation between human resources costs and profitability	11.164	1	0.0248	fixed effects method

According to table 4, the obtained value of both models is significant. According to the reported significance, H<sub>0</sub> is rejected and H<sub>1</sub> is accepted at confidence level of 95% for each of models; hence, the fixed-effects methods should be used.

**6.1 Relation between human resources costs and profitability**

The effect of explanatory variable on dependent variable (profitability) is examined using information obtained from financial statements of companies in 2015.

The following part is related to regression estimation of relation between human resources costs and profitability.

As can be seen in table 5, since correlation coefficient (0.821) between two variables of human resources costs and profitability tends to 1 and since correlation at the rage from 0.075 to 1 is a strong correlation and since significance level of human resources costs and profitability is significant, the strong correlation between human resources costs and profitability is generalized as follows:

Table 5. Regression estimation of relation between human resources costs and profitability

variable	abbreviation	coefficient	t value	significance level	adjusted R <sup>2</sup>	R
fixed coefficient	$\beta_0$	-2.529	-94.43	0.000	0.593	0.821
human resources costs	TRChr	0.0024	6.31	0.000		

Significance of coefficient related to independent variable and fixed coefficient is tested using t-student test. Null hypothesis and opposite hypothesis for estimation of model parameters (slop and intercept) are as follows:

$$\begin{cases} H_0 : \beta_i = 0 & i = 0,1 \\ H_1 : \beta_i \neq 0 \end{cases} \quad (1)$$

**6.2 Value amount of test is calculated as**

$$t_{\beta_i} = \frac{\hat{\beta}_i - 0}{S_{\beta_i}} \quad (2)$$

Also, rejection and acceptance areas of null hypothesis are defined as follows:

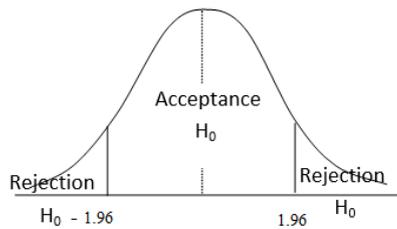


Figure 2. Rejection and Acceptance areas of null hypothesis at confidence level of 95%

Judgment method is that if  $t$  value is at rejection area,  $H_0$  will be rejected. According to the results of table 5, calculated  $t$  values, and related probabilities, significance level of  $t$  is lower than 0.05% for variables of fixed coefficient and human resources costs. Therefore, the test, equality of regression coefficients of these variables to zero, is rejected indicating significance of mentioned variables at confidence level of 95%. Therefore, the

relation between human resources costs and profitability is described as follows:

$$ROE_{it} = -2.529 + 0.0024 it \quad (3)$$

As can be seen from this model, there is a positive significant relation between human resources cost and profitability. Examination of adjusted coefficient determination of model (0.593) indicates the high ability of model to explain and describe dependent variable. Accordingly, about 59.3% of changes in profitability are explained by human resources costs.  $F$  value of regression of this model implies explaining ability of model, because calculated  $F$  values are significant at 5% level. Therefore, there is a direct linear and significant relation between profitability and human resources cost in accordance with the calculated  $t$  values and adjusted coefficient of determination.

### 6.3 Relation between profitability and other independent variables

Table 6. Regression estimation of relation between profitability and independent variables

Variable	Coefficient	Adjusted R <sup>2</sup>	R	t value	P-value
intercept	3.462			9.522	0.000
human resource cost	0.004%	0.593%	0.821%	6.321%	0.000%
ratio of human resources cost to total assets	0.004282	0.18	0.205	.0119431	0.000
ratio of human resources cost to capital asset	0.046243	0.11	0.078	1.246015	0.0914
ratio of human resources cost to wages and bonus	0.029261	0.08	0.083	2.339441	0.0710
ratio of human resources cost to net operating profit	0.000935	0.17	0.195	0.585351	0.0000
ratio of human resources cost on before-tax net profit	0.031251	0.14	0.104	1.352170	0.0246

According to table 6, coefficient of human resources cost ratio to total assets and profitability is positive; also,  $t$  value and significance level related to it imply significance of positive effect of this variable on company profitability. Therefore, hypothesis 2 is accepted.

Also, there is not any significant relation between ratio of human resources costs to capital assets, ratio of human resources cost to wage and bonus, and profitability of company. In other words, probability value is above 0.5%; therefore, hypotheses 3 and 4 are not accepted.

Variable of human resources costs ratio to net operation profit is positive;  $t$  value and significance level of it also indicate positive effect of the mentioned variable on company profitability. Therefore, hypothesis 5 is accepted.

Ratio of human resources costs to before-tax net profit and profitability is positive;  $t$  value and significance level related to it also indicate the positive effect of this variable on company profitability. Therefore, last hypothesis is accepted. This variable is able to explain 14% of changes in company profitability.

According to the results obtained from table 4-12, the estimated model can be presented. In other words, multiple linear regression model of profitability ratios based on human resources factors is estimated as follows:

Profitability = 0.59 human resources costs + 0.18 ratio of human resources cost to total assets + 0.17 ratio of human resources cost to net operating profit + 0.17 ratio of human resources cost to before-tax net profit.

$$Y = 0.59 + 0.18x_1 + 0.17x_2 + 0.14x_4 \quad (4)$$

It means that a one-unit change in independent variable of this research leads to about 6 units change (increase or decrease) in dependent variable if other variables are fixed.

Also, if other factors are assumed as fixed factors, a one-unit change in second, fifth, and sixth independent variables leads to 1.8, 1.7, and 1.4 unit change (increase or decrease) in dependent variable (profitability).

## 7 Conclusion

The purpose of this study was to examine the relation between human resources accounting and profitability in Tehran Stock Exchange during 2011-2014. Research territory is evaluation of the relation between human resources costs and profitability of company. The obtained results indicated a linear positive relation between human resources costs and profitability of listed companies in Tehran Stock Exchange. Therefore, the null hypothesis about the lack of relation between two variables was rejected; hence, this hypothesis was accepted.

According to the results obtained from final model, adjusted coefficient of determination was 0.588 and it means that this model is capable of explaining 58.8% of profitability changes. In previous researches, Etemadi and Chalaki (2005) found that there was a significant relation between criteria of human resources costs and profitability. This result is matched with the result obtained from present study. Betazi et al (2008) found that companies with higher productivity had higher profitability and more rapid growth. This finding is also matched with results of present study. Some recommendations are presented based on the research results in order to promote and expand further studies.

### 7.1 Practical recommendations based research results

According to the results obtained from hypotheses testing, there is a positive relation between human resources and profitability. Hence, some recommendations are presented as follows:

The present study is beneficial for all companies listed in Tehran Stock Exchange, all investors, and all users of financial statements. This research can:

1. Provide beneficial and accurate information for financial investors in market as well as a proper evaluation of performance of investee firms.
2. be used by stock market brokers to determine transactional price of stocks, to control rate fluctuations in major and minor halls of capital and financial markets.
3. be used by many of users such as stock investors and financial lenders. Meanwhile, the government is one of the important users of this research and can use it as a control measure at financial market level.

## 7.2 Practical recommendation based on further studies

Each study can pave the way for further studies that are necessary. Hence, it is required to conduct some studies considering following options:

1. Adding control variables to this research examining the results
2. Determining the relation between productivity and human resources investment in capital assets
3. Comparing human resources productivity ratios with other profitability factors

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## EVALUATING STRESS IN DIFFERENT SPOTS OF IZADKHAH DAM BY FLAC MODEL

<sup>a</sup>MOHSEN GERIVANI, <sup>b</sup>MOHAMMAD KHANDAN BAKAVOLI

<sup>a</sup>Masters student Geotechnic, Islamic Azad University, Hamedan branch, Iran.

<sup>b</sup>PhD Geotechnical Earthquake, Assistant Professor university Boojnord, Iran

Email: <sup>a</sup>Moh3en.4741@gmail.com, <sup>b</sup>M.khandanb@yahoo.com

**Abstract.** This paper tries to investigate resistance factors of Izadkhash dam such as pressure of stress distribution. At first, by using instrumentation data of construction period, finite difference method and commercial code of Flac by back analysis method, we reach rational data from preliminary data then continuing project procedure, we divide operation period into the two ten-year periods and the first operation period had began since 2008. Results show that using behavioral model of Mohr-Coulomb in core vertical settlements has appropriate accuracy. Also, analysis of dam total structure show that after construction completion and the first water load, the pore pressure of water created in dam core, amounts 370 kpa which is in the middle of core level.

**Keywords:** stress evaluation, back analysis, vertical and horizontal transformation, Izadkhash dam, Flac.

### 1. Introduction

Designing and constructing embankment dams is one of the sciences which has thousands years of background and many countries located in arid and semi-arid areas such as Iran have beneficial experiences in this regard in early 20<sup>th</sup> century. Significant transformations had been strated based on done studies by Karell Tarzaghy. Because of diversity of factors affecting embankment dam behavior, specially significant impacts of natural phenomenon such as geological and geotechnical conditions, hydrological and geohydrological conditions of region and climatic conditions which make this scientific discipline face with complex problems that negligence of them can cause project failure and many financial and fatal damages. Destroying many emabankment reservoir dams in world after 1970, proves this claim (Pagano, et al., 2006). During recent decades, different types of numerical methods such as finite element, marginal element and seprated element are applied in solving engineering problems. Today, these methods are used in designing dams, underground spaces such as tunnels, underground stores and slopes. Reliability of designing assumptions depends on input information accuracy of analysis as if they are not being accurate enough or not representing actual values of mechanical parameter of environment, determining values of geomechanical features including stresss, settlement etc., will be difficult (Zoufaghari, 2005). In investigating embankment dam's behavior, because there's lack of deterministic criteria for evaluating data, often personal judgments of people are stressed. But, from the first time that numerical situation of layered construction of dam was done, many significant advances, both in numerical methods and physical interpretation of problems has been occurred. Although, only finite number of numerical predictions had modeled deformations of the construction period and the first water load accurately (Clough, and Woodward, 1967). Many scholars have taken steps to evaluate ethology of embankment dams. Ziaei (2014) investigated changes of the pore pressure of Maku dam core during operation period. In that research, based on data proposed by piezometer installed inside the foundation and around the cut off wall, significant downfall in downstreams piezometer level of cut off wall could been seen which shows good performance of this wall. This downfall inside the clay which acts as an impermeable one in this kind of dams, also shows good performance of core. In this research, comparison between resulted diagrams of instrumentation results and also numerical analysis show that there is a good match between measured data by electrical piezometer and software results and dam performance in terms of leak is trustable. Rattue (2000) investigated behavior of Santa Margaret dam in Canada with 171 meter height. In that research, because levee materials had high permeability and levee humidity was equal to the optimal

humidity, there was a little pore water pressure in this dam by comparing numerical analysis using obtained parameter of triaxial tests, it was seen that resulted values of analysis does not match with obtained values of measurement and because of that, resulted values of analysis of model were adjusted by performing a trial and error process and it was seen that actual Yung model of dam is 2, 3 times more than obtained values of triaxial tests. Ebrahimnejad, Sediq, Emami Tabrizi and Barari proposed a research named behavior survey of foundation and body settlement of A'lavian dam during operation period. In that research, in addition to the analyzing done measurements regarding displacements and vertical transformations of body and foundation of A'lavian dam with 80 meter height during four years after construction, also interaction between gallery and foundation was done (Jafarzade and Talebi, 2013). Another research was done by Bemaniyazdi under guidance of Dr.Hosseini. In that research, monitoring of Karkhe embankment dam after water load was done and Plaxis and CA2 software were used for back analysis and modeling stress-stress behavior of dam. Main points of this research regarding changes trend of dam behavioral features including pore water pressure and transformations and recreation of these trends by numerical model. Settlement values, pore water pressure and vertical total pressure were analyzed in terms of limit values and changes trend during construction and water load period. Coefficients of pore water pressure and arching were investigated in two done and achieved modes of read out. At the end of that research, predicting dam behavior in effect of reservoir level increase and almost faster decrease than reservoir were done (Haeri, 1996).

In this paper, we investigate behavior of Izadkhash embankment dam during construction and the first water load (which is one of the most important stages of loading and investigating statistical resistance of dams) was done. Also, behavior of this dam was recorded by measurement machines during construction and water load and these information were applied in this research. For investigating this dam behavior in construction and water load mode, Flac software was used and results of this numerical analysis were compared with monitoring results. By this software, displacements and stresss, arching during last stages of construction and water load could be investigated. By back analysis, more realistic parameter are achieved for dam behavior which are usable for analyzing dam behavior under future loadings.

### 2. Investigating behavior of embankment and rock fill dams during construction

#### 2.1. Stress conditions during construction

Total and effective stress values in dam during construction depends on dam geometry and resistance parameter and compressibility of materials. For a homogeneous dam on solid foundation, elastic analysis shows that vertical stress values in dam axis depends on dam geometry and lateral stress values, in addition to the dam geometry, depends on Poisson ratio of core and shell materials values. During early stages of construction in which, width of levee is more than its height, assumption of increasing stress is equal to the depth of soil multiplied by its weight. But, in next stages, this assumption does not seem rational (Duncan, 1996).

#### 2.2. Dam displacement during the first water load

Displacements of dam because of the first water load can has a complex nature. Input of water force can have following effects:

1. Water forcing on core upstream causes increasing in total lateral stress and push dam down.
2. The impact of water on upstream foundation is in this way that if foundation compressibility will be high, it will be so effective on transformations of dam body. Settlement difference in foundation can cause problems.

3. Decreasing effective stress on upstream shell caused by the phenomenon of immersion partly caused uplift deformation in this area. It should be mentioned in this regard that tangent modulus of materials in unloading is higher than loading.

4. Decreasing parameter of shear resistance and elasticity modulus of upstream shell materials caused by stress and absorption of rock fill materials in upstream shell finally leads to subsidence. Figure 1 shows four effects of water load on dam which are mentioned above.

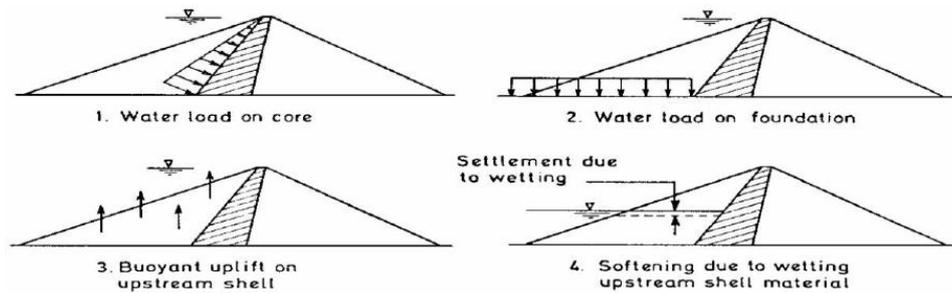


Figure1:Reservoir water loading effects on embankment dam

### 3. How Flac software work

Flac program for materials propose user following featured models (Zamiran, 2013, Ghorbani and Jamshidi, 2012):

Isotropic elastic model, Mohr-Coulomb plastic model, Drucker-Prager plastic model, Hook-Brown plastic model, hardening-softening strain plastic model, plastic model, reyielding model, Cam-Clay adjusted model. Of course there are more models in Flac software for plastic models, creep models and models which cause pore pressure in dynamic analysis. One of the features of Flac software code is capability of defining behavioral model by using C++ program and adding that to the Flac software code.

### 4. Introduction of Izadkhash dam

Izadkhash dam located in Fars province. River bed level at the site is 1310 meter above sea level, area level to the dam site is 910 square kilometer, average raining of area (annual raining) is 365 mm per year, average yearly is 110/9, minimum amount is 28.62 million cubic meter (water year of 49-50) and maximum amount is 386/9 million cubic meter (water year of 72-71) in the period of 30 years. Reservoir level of maximum level (1380.4 meter) is 3.27 square kilometer, reservoir volum at maximum

level (1380.4 meter) is 95 million cubic meter, input flooding to the reservoir with return period of 100 years is 1000 cubic meter per second, input flooding to the reservoir with return period of 1000 years is 1950 cubic meter per second, input flooding with return period of 10000 years is 3100 cubic meter per second (Zamiran, 2013). This kind of dam is embankment- rock fill dam with inclined clay core, crest length of dam is 485 meter apart from the length, plug fuse and the bridge over the spillway, crest width of dam is 10 meter, the height from dam bed is 71 meter, the height from foundation is 77 meter, crest level of dam is 1381 meter from sea level, the width of the base in the biggest segment is 330 meter, normal level of dam reservoir is 1378 meter from sea level, reservoir volum in normal level is 82 million cubic meter and reservoir level in normal level of dam is 2.7 square kilometer.

Also, it has grout curtain of 44000 square meter in calcareous masses. Izadkhash dam of Darab has 3 sections of B, E and H tools category and locating maps of dam tools category are shown below. In this dam, different tools such as electrical piezometer, foundation and vertical pipe, barometer cells, hydraulic and magnetic settlement cell, propane and in place turnkey and accelerometer and meteorological systems were used.

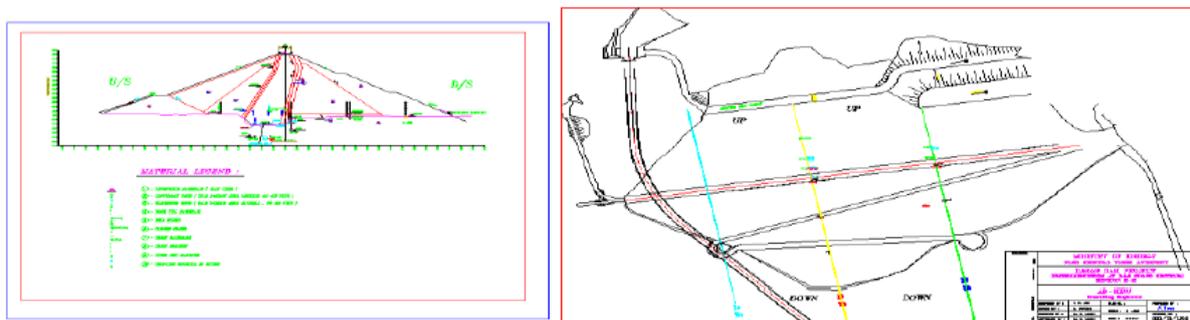


Figure2: Instrumentation layout plan of Darab Izadkhash dam and its section

### 5. Modeling trend of construction and water load stages of Izadkhash embankment dam

There are different methods for creating elements net in Flac software such as Grid, simple, block and Radial etc.; in this modeling, Block method was used. For creating elements, 6 horizontal blocks (2 blocks for foundation and 4 four blocks for body) and 11 vertical blocks (for upstream and downstream shell, upstream and downstream filter-transition, the front space of dam in upstream, downstream and finally in core) were used. Block method could change the mesh density in different areas (9). In defining elements net, it was tried that the length to the width ratio of elements being close to 1 to increase the accuracy

of solutions. In Flac software for to the length to the width ratios which are greater than 10, software shows error message. Generally, command for creating a block is as follow (Zamiran, 2013):

Gen x1, y1 x2, y2 x3, y3 x4, y4 i=1 m j=1 n

By above command, a four-square block with coordinates of  $x4, y4 \times x3, y3 \times x2, y2 \times x1, y1$  is formed in which, number of existed elements is equal to  $m \times n$ . In modeling Izadkhash dam, an element net of  $123 \times 53$  is used and total dimension of net is  $450 \times 141$  m. Below figure shows intended elements and geometry for modeling body and foundation of Izadkhash dam in Flac software.

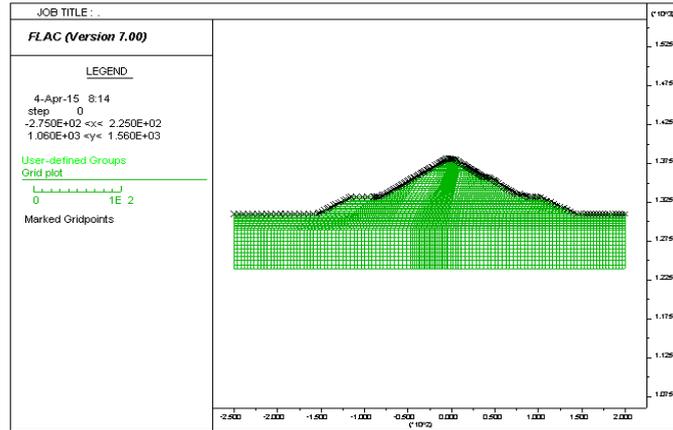


Figure3: Element components and considered geometry For Izadkhanst dam in Flac software.

Table1: The initial values of the parameter of materials

e	$K_y, m/s$	$K_{x,m/s}$	$\psi, deg$	$\phi, deg$	$C, KN / m^2$	$\nu$	$E, MN / m^2$	$Y, KN / m^3$	materials
0.25	$1 \times 10^{-11}$	$1 \times 10^{-10}$	2	30	50	0.25	200	21/3	Foundation
0.30	$1 \times 10^{-7}$	$1 \times 10^{-8}$	1	20	17	0.38	15	18	Core
0.33	$1 \times 10^{-3}$	$1 \times 10^{-4}$	66	31	0	0.35	24	19	Filter
0.35	$1 \times 10^{-2}$	$1 \times 10^{-3}$	4	32	0	0.32	28	19/5	Drain
0.36	$1 \times 10^{-1}$	$1 \times 10^{-2}$	5	33	0	0.31	29	20	Transition zone
0.34	$1 \times 10^{-1}$	$1 \times 10^{-1}$	1	38	0	0.37	33	18/5	Shell
0.32	$1 \times 10^{-3}$	$1 \times 10^{-4}$	3	30	0	0.36	40	21	Cofferdam

**6. Investigating vertical and horizontal deformations of dam body**

One of the most important behaviors of embankment dam is deformations occurs inside and outside of dam body. During construction period and after that if this phenomenon not controlled, can endanger resistance and efficiency of dam. For measuring inside transformations, two settlement cell – turnkey installed in cross section (E-E) of dam body were used. In this way, for measuring vertical transformations, settlement cell is read outed. Also, physical deformations of dam are measured by continuous finding points of signal points installed in areas of

body surface by mapping cameras. Measurement of vertical deformations is done by settlement cell in this way that there are special magnetic levels inside the settlement cell sheath at 5 meter intervals and the lowest level which is the base plate is installed on the rock foundation in which the least relocations had occurred. In (E-E) section, 3 settlement cells named I-E1, I-E2 and I-E3 are located in 3 meter, 53 meter and 103 meter of dam axis respectively in downstream side of shell. For evaluating vertical and horizontal deformations of (E-E) section by Flac software, values of measured settlement were analyzed by above instrument during construction.

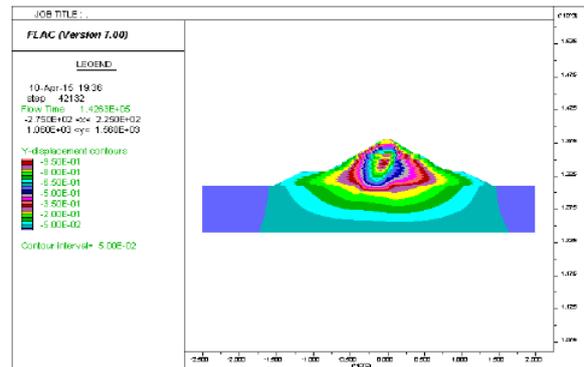
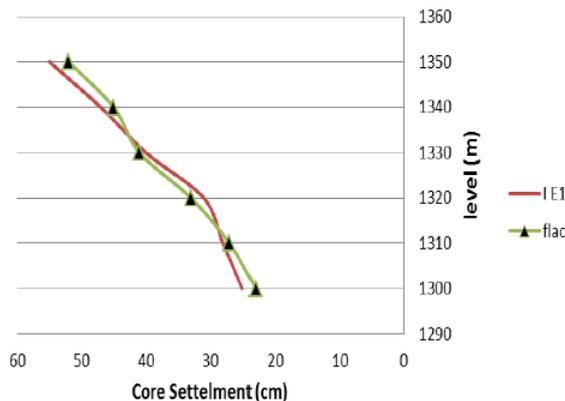


Figure4: Vertical displacement counter in embankment level of 1381 meter and settlement changes in different levels of downstream shell of section (E-E) to the embankment level of 1381 meter.

Above figure shows measured and achieved settlement values from back analysis in downstream shell of dam at the end of embankment is 1381 meter. Error of these data is 0.5. As seen, measured settlements are less than settlement of upstream shell but almost, they have the same changing trend as maximum measured settlement is 92cm and maximum settlement from back analysis is 95cm.

**7. Investigating vertical pressures of (E-E) section**

In (E-E) section, 3 piezometer were installed in different levels that installed piezometer in 1315 meter level which has the highest total tension was used for back analysis. 2 clusters of 3 installed clusters in this section are in 1342.5 meter and 1365 meter level and both of them are in the core. As seen, changes trend of measured total pressure in core shows acceptable values.

Generally, while embankment dam height has increased, results of pressure cells in comparison with the results of software has decreased. Its reason can be possible rotation of piezometer plates and also local arching phenomenon. Based on principles of materials resistance, when one plate has rotated as much as over the horizon, in this case, stress in plate which has angle over the horizon, is equal to:

$$\sigma_{\theta} = \sigma_y \cos^2 \theta \tag{1}$$

Regarding to the installed pressure cells in dam body, if piezometer plate rotated as much as , finally instead of horizontal stress of  $\sigma_y$  , less stress i.e.  $\sigma_{\theta}$  will recorded.

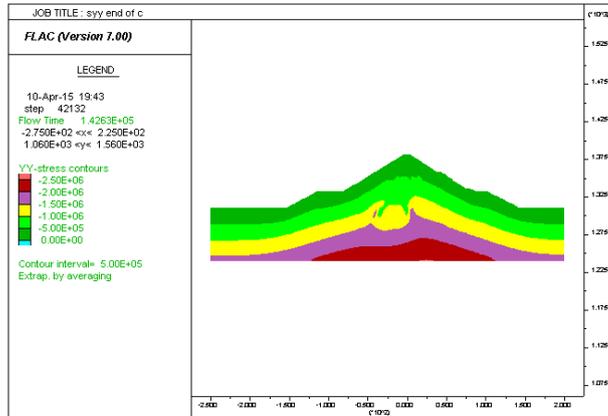


Figure5: Vertical stress counter in embankment level of 1381 meter

For installing piezometer cells in specific level, a hole being digged out and piezometer will put on the hole., then digged out hole will filled with same materials and again, they will smashed but as filling soil of hole become dense with lighter rollers, always existed soil in hole has less density than soil around the hole and by embankment level increasing, existed solid materials in the hole rely on around space , consequently, local arching phenomenon occurs in hole location and less stress reaches to the piezometer plate. The total stress error is 0.11 averagely.

**8. Behavior of Izadkhast dam of Darab during the first water load**

Behavior of Izadkhast dam which has 71 meter height, was evaluated by the end of construction when the first water loading was done and reaches 1355 meter levels, behavior of Izadkhast dam will using interpretations of dam read outs by installed instrumentation in its body and also comparing that with done analysis shows natural behavior of dam during construction, except in very minor cases that can be caused by operational problems or damaging very sensitive machines after installation. In the following section, regarding done investigation and also performing back analysis and obtaining real parameter of materials, predictions about dam behavior during operation are proposed.

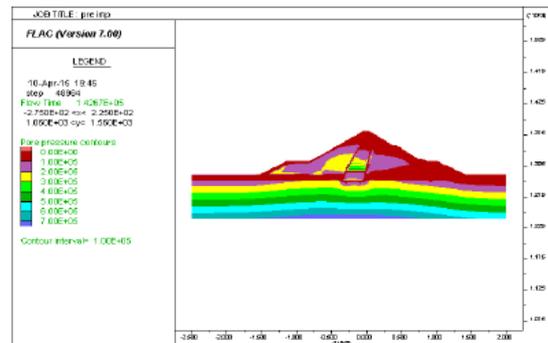
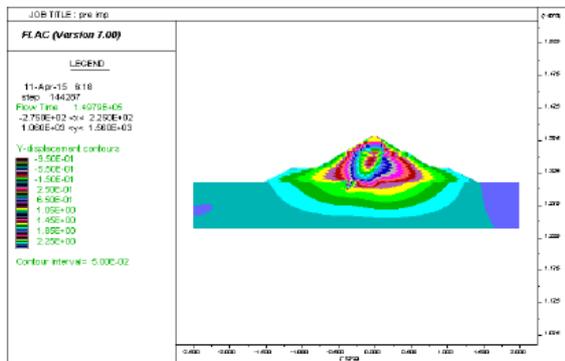


Figure6: Vertical displacement in water loading level of 1355 meter and counter map of pore water pressure in water loading level of 1355 meter.

Regarding done analysis for total body of dam, after construction completion and the first water loading, the pore water pressure in dam core reaches 370 kpa which is in the middle of core level,

regarding analysis of dam body, after construction completion, the pore water pressure in dam core reaches 96cm which is in the middle one-third of the core level.

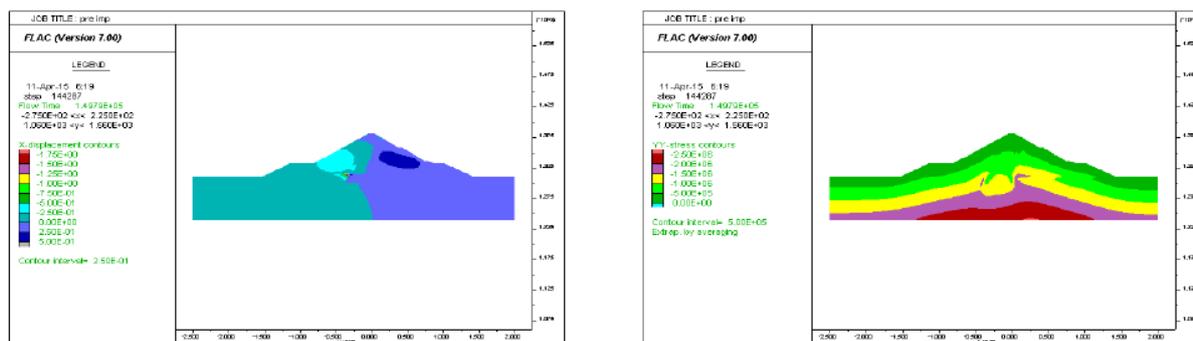


Figure7: Total stress counter in water loading level of 1355 meter and horizontal displacement in water loading level of 1355 meter.

As it is obvious in above figure, horizontal displacement become asymmetrical and the maximum amount is because of water loading in downstream shell. Regarding analysis of dam total body, total stress reduced to the little amount which is also exists in the corner of core level.

## 9. Conclusion and discussion

In this research, resistance factors of Izadkhash dam were investigated. At first, by using instrumentation data of construction period, finite difference method and commercial code of Flac with back analysis, we reach rational data from preliminary data, then for continuing project trend, we divide operation period into the two ten-year periods and the first operation period was began since 2006. Flac software is a finite difference method which is appropriate for modeling big transformations, the main formulation of Flac 2D program used in this research is base on 2-dimensional plane strain.

Lagrangian computational method and zoning special technique help Flac software for better modeling of plastic transformations and pulp flow in materials. Since no matrix is used during computations, as a result, 2-dimensional long computations do not need large amount of computer memory. Modeling abilities of this program in comparison with other numerical software including plane strain geometric models, plane stress axial symmetry, solving problems in big strain mode for dynamic analysis of embankment dams, possibility of stage construction modeling in embankment dams, ability of solving model in total stress mode and effective in embankment dams analysis, statistical, linear and non linear dynamic analysis of dams components, solving linear elastic and non-linear elasto-plastic problems (Mohr-coloumb) which are used in embankment dams, investigating between mechanical transformation and fluid flow (2-dimensional consolidations, inflation) in statistical and dynamic analysis, investigating resistance of gables embankment dams, possibility of adding behavioral models to the programming languages of C++ and FISH by user for more advanced analysis of embankment dam. The main drawback of this software is its low speed and models convergence in consolidation problems. Generally, the most important results of this research are as follow:

1. The level of effective strain from the first water loading had decreased till the end of 10-year period but it has decreasing trend since the began of the second 10-year period.
2. Total stress trend in dam body has slow ascending trend which was transferred from the first water loading till the

end of the first 10-year period from the low level beside the core to the middle low level of core.

3. Vertical displacement in Izadkhash dam has slow ascending trend which is slower in upstream shell than downstream shell because of water.
4. Horizontal displacement of Izadkhash, like vertical displacement, has ascending trend but the trend of downstream shell is faster because of lack of water.

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## URBAN DESIGN GUIDELINES FOR AIRPORT ENVIRONMENTS FROM THE PERSPECTIVE OF PASSIVE DEFENSE (TO DEAL WITH TERRORIST ATTACKS) - CASE STUDY: NORTHERN PART OF THE SPINE ROAD OF IMAM KHOMEINI INTERNATIONAL AIRPORT

<sup>a</sup>HODA GHANBARPOUR, <sup>b</sup>MOHAMMAD HASSAN ATAEE KACHOEE, <sup>c</sup>MAHTAB NEZAFAT

<sup>a</sup>MSc of Urban Design, Faculty of Architecture and Urban Development, Shahid Beheshti University, Tehran, Iran

<sup>b</sup>MSc of Passive Defense, Faculty of Spatial Planning and Passive Defense, Malek-Ashtar University of Technology, Tehran, Iran

<sup>c</sup>MSc of Urban Design, Faculty of Architecture and Urban Development, Shahid Beheshti University, Tehran, Iran

E-mail: <sup>a</sup>hoda.ghanpour12@gmail.com, <sup>b</sup>Mh.Ataee@yahoo.com, <sup>c</sup>mahtabnezafat23@gmail.com

**Abstract.** This research attempts to identify urban design principles resistant to terrorist explosions in public areas of airports. The research method was descriptive-analytical and data collection was through library method such as literature review and local survey. To use the research results, Tehran Imam Khomeini Airport is used. The findings indicate that three effective characteristics are required to achieve terrorist blast-resistant urban landscape design. All three qualities are functional components of urban design. Some of these provide facilities for the prevention of explosion and the other part of these qualities minimizes the harm to the individuals and the body of the airport. At the end, according to the stated goals, the solutions will be provided in the format of urban design guidelines document in both substantive and procedural aspects.

**Keywords:** passive defense, urban landscape, airports, terrorist explosion, Imam Khomeini International Airport

### 1. Introduction

In the last century, one of the most serious types of human challenges is the concept of "terrorists" which more than ever threatens physical and psychological safety of human kind that are the most important social capitals. The use of passive defense in order to deal with terrorist threats and to reduce its damage is a fundamental issue. It covers almost all vital and vulnerable centers of economic, political, military, communications, scientific, cultural, and public areas of cities where serve as gathering place for citizens. So, protecting national security and political, economic and defense independence, vibrant urban life and its social life depend dramatically on comprehensive planning on the subject. Countries that have experienced the damage and losses caused by terrorism, today, pay special attention to the passive defense to preserve their national and social capital and vital resources. They have also paid special attention to the subject in their defense strategies.

Airports, in this context, are of particular importance. They are one of the critical infrastructure of each country that cost a lot of material and human costs and a lot of time to be built and maintained and serve as a bridge between cities and countries and, in fact, human beings. Given that airports are in the third ring of Warden's Five Ring's Theory, they are of the most priority among enemy targets. It has additional priority considering Tehran Imam Khomeini International Airport as vital centers of the Ministry of Interior. It means that there have always been the probability of potential threat, for various reasons, to impair the function of the airport temporarily or permanently. One of these threats, as mentioned, is the terrorism. It often considers the following four objectives in its threats: 1- human targets (figures and ordinary people) 2- facility targets (important, crucial, sensitive, and protectable places) 3- equipment targets (Special, sensitive, important and protectable) 4- soft targets (programs, plans and ...). Therefore, it is essential to plan and implement the passive defense in order to prevent these threats from reaching their intentions. According to aforementioned sensibilities, this research tries to somehow fill the gap of the absence of planning and implementing in passive defense in the public areas of airports. It also attempts to provide effective solutions to deal with classic terrorist attacks

(bombings, suicide attacks, remote control explosive cargos) and to minimize vulnerabilities in the field.

### 2. Literature

According to the research topic, topics like passive defense, threat, general introduction of airport, and concepts and principles of urban design have been discussed in this section.

#### 2.1 Defense and passive defense

Defense are measures taken by one or more allied countries to resist against political, military, economic, social, psychological and technological attacks (Jalali and Hashemi Fesharaki, 2011). Defense are of two types: active and passive. Tools and technologies are applied to prevent enemy invasion, especially air strikes, are categorized in active defense (Asgharian Jeedi, 2008).

Passive defense is the set of non-armed measures that increase the deterrent power, decrease vulnerability, cause the continuity of the essential activities, enhance national stability and enhance crisis management in the face of threats and military actions (the first paragraph of the general policies of the government in the areas of passive defense, 2011). It also refers to a series of defensive measures we can use to resist against the enemy's surprise invasion with minimal facilities and technical equipment (Asgharian Jeedi, 2008).

#### 2.2 Threat

In general, the threat can be defined as the result of attempts to cause injury and damage and disrupt the current order and activities (Jalali, 2013). In terms of the source, threats categorized as natural and manmade threats and perceived threats to important centers.

Perceived threats to important centers, including civilian airports, have been mentioned with different categories in different sources. Two examples will be discussed here.

In the draft of twenty-first discussion about the national building regulations entitled "passive defense", the perceived threats to the important centers have been addressed as follows:

- Natural threats include floods, earthquakes and hurricanes
- Man-made military threats including air, land and sea strikes
- Man-made security threats including terrorism and suicide attacks
- Man-made accidental threats include industrial disasters and negligence (draft of National Building Regulations, 2010).
- The book "Architectural requirements in sustainable passive defense" have also described the threats as follows:
  - Natural threats; caused by dust, extreme heat, floods, etc.
  - Security threats; terrorist attacks, explosions, hostage-taking, separatist movements, riots and...
  - War threats; land, air and missile threats and people-centered operations and irregular wars (Asgharian Jeedi, 2008).

It should be noted, the threat in this study is the terrorist explosions that are among the classic terrorist threats (including bombing, suicide attacks and remote-controlled explosive cargos). However, the perceived threats to the civilian airports are beyond this specific type.

#### 2.3 Airport

Airport is a collection of various facilities and equipment brought together to provide facilities for transferring and air

transport. As marine transportation is required sea port, the airport can also be likened to the Air Port that is indispensable for air transportation (Behina, 1985). It is considered as an integral part of a city infrastructure that helps to enhance its business potential (Nazarian et al., 2011). The main purpose of an airport, also, is to provide access for passengers and cargos to air transport. So, the airport aim is to provide essential link between the air and the ground. (Wells and Yount, 2004).

Progress and development of the aviation industry in the late twentieth century as well as the importance of this industry in recent years have attracted attention to the key role of infrastructure development in the aviation sector in order to achieve sustainable development. The requirement for achieving development in today's world is to increase speed in economic activities, exports, communication with the various sectors within and outside the country and etc. With a little reflection, we realize that all this is not accessible except by upgrading capabilities in the aviation sector. So, airports and relevant communication networks and the sustainability of their activities in times of crisis, not as a requirement, but as an inevitable necessity should be pursued in macro level nowadays. Due to the changing nature of wars and smart approaches of new wars with elements of precision, speed and intensity, airports can be targeted precisely in the early hours of conflicts. As far as the opinion of some experts, dual capabilities for airports should not be expected (Hosseini et al., 2015).

#### 2.4 Urban design and urban landscape

In general, there are various definitions of urban design. The definitions are different based on the time period they belong to or the details that the definition provides. One of the definitions of urban design in its adolescence in the late 80s to 90s is as follows: "Urban design is more than concentrating only on aesthetics of urban environment or artistic deployment of its elements. Urban design is concerned with the creation and maintenance of urban areas in which appropriate responses to ecological issues, economic welfare and collective life have been combined."

Given that in this study issues related to urban perspective cover the major part of the intersection of urban design and passive defense, its meaning and principals will be discussed in this section.

"Urban landscape" is considered as the contact area of "man" and "city". Good urban landscape can increase the competitiveness of cities. Urban design can be effective in attracting creative classes and top activities and ultimately improving socio-economic status of cities through urban landscape management and improving the quality of the environment. This effect is so that a good urban design and urban landscape can have well defined and measurable "economical", "social" and "environmental" added value for development projects and urban construction (Golkar, 2012). Urban landscape elements include the structural elements (lining, floor), space complementary elements (natural

elements), unnatural elements (urban furniture, population, various means of transport). In terms of scale, urban landscape fall into three categories: large-scale and the perspective of the city, mid-scale and inner city landscape and small-scale and the city space.

So, according to all that was said about urban design and urban landscape, it can be concluded that the role of the strength and stability of structural elements of the urban landscape and also the functional targets of urban landscape (like readability of the environment) are undeniable in reducing airport vulnerability against explosions and preventing the explosion. They will also help to enhance the safety of the environment and security of passengers.

#### 2.5 The relationship between urban design and passive defense

Paying attention to the normative design of open spaces based on defensive ideas by designers of biological complex and enforcement officers of urbanization laws increases the safety factor and consequently decreases injuries and damage. These losses can be reduced to a minimum by intelligently integrating urban design elements, natural elements of architectural elements and principles of passive defense. Of course, in many urban areas, it is not possible to make secure all the open spaces. Therefore, we can only secure the limited spaces to enable users to feel safe and secure in vacation and leisure time (Farzam Shad, 2008).

### 3. Research process

The main objective of this research is to develop general urban design guidelines for the north side of the spine road of Imam Khomeini International Airport based on principals of passive defense. These guidelines are also usable for other international airports. The research method is descriptive-analytical. After reviewing the related literature and the introduction of the site, urban design guidelines from the perspective of passive defense (to deal with terrorist attacks) have been developed for airport environments. Field study and library method were used for data collection.

#### 4. Introducing the Case Study

Imam Khomeini International Airport Project was planned in 1951 during the Pahlavi era and was called the airport Shah of Iran, but it was after the Islamic Revolution in 1997 that the construction began and continued until 2005. Phase one was completed during the past few years.

Now, Imam Khomeini International Airport has a handling capacity of 4.5 million passengers and 120 thousand tons per year. Its capacity can be increased to 5.6 million per year. In the final phase, it will serve 90 million passengers.

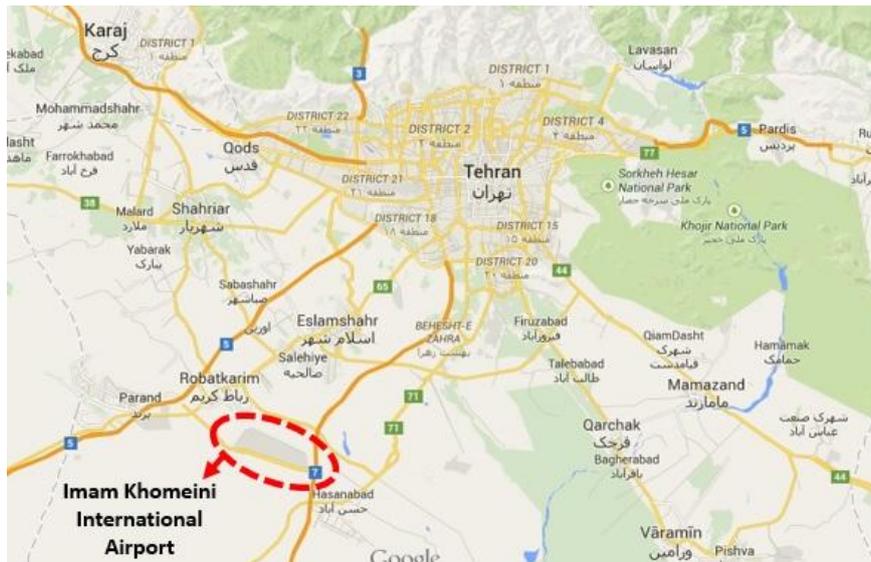


Figure 1: Location of Imam Khomeini International Airport compared to that of Tehran. Source: author

Reviewing studies related to detailed and comprehensive plan of the airport city and Imam Khomeini International Airport Master Plan studies indicate that the spine road of the airport has been dedicated to airport usages (passenger terminal and its parking lots) and commercial corridor that is in relation to the other tourist, cultural, and sports sections in the airport city. Unfortunately, there is no plan for urban design resistant to terrorist bombings in any of future development sections of the airport and airport city. Therefore, there is the gap of urban

design guidelines resistant to terrorist bombings in public area of the spine road of the airport.

**4.1 Assessment of strategic areas**

Strategic area of the research reach to Azadegan highway from north side, Shoor river from south, Tehran-Saveh highway from the west side, Tehran-Qom highway from the east side and to the Industrial Zone of Hasanabad from the southeast side.

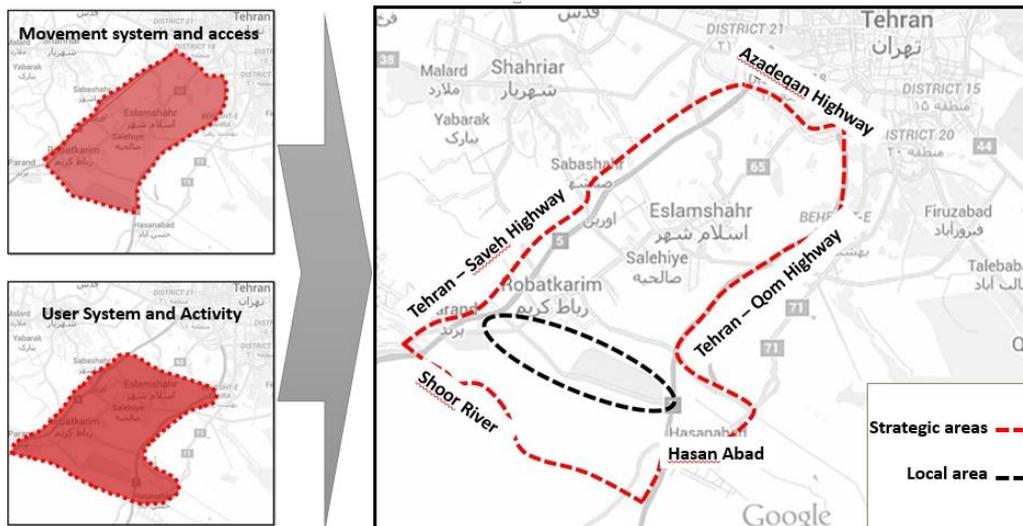


Figure 2: The studied strategic area.

After scrutinizing strategic area, the system of movement and access, the system of land use and activity, and identification of police, relief and services centers around the site, the physical form and urban landscape systems were studied. The results of this study showed that due to the location of the airport (outside Tehran surrounded by desert and dry areas), the role of use and activity and movement and access systems is important in the event of a terrorist explosion and a crisis. So, strategic area should be scrutinized according to the two systems. Thus, quick and easy access of relief and security forces and the existence of such things with the proper distance to the airport are among the important cases that were considered in the assessment of strategic area.

**Terrorist bombing scenario in the Imam Khomeini International Airport**

This scenario is played by terrorist groups supported by enemies of the Islamic Republic of Iran. The members or coaches who trained and equipped by necessary trainings and equipment in hostile countries enter into the territory and attempt to bomb with the aim of tarnishing the international image of the country security, showing it as an opposition fostering country, incurring massive human losses and implying the gap between the people and the government. These terrorist acts can occur in areas with public access such as car parking, passenger terminal and access roads. One of the most vulnerable points to the terrorist blast is the terminal entrance. Due to the glassy wall and the possibility

of the bombed vehicle collision with the door, the most damage will be in the airport terminal.

Also, the maximum bang can be in a bombed truck whose losses and risk radius will be 72 and 286 meters respectively. So, risk radius of 286 meters is the maximum radius that causes slight

damages and leaves the glass cracked or broken. Given that the scope of this survey is the public areas of Imam Khomeini International airport in Northern spine, this number can be used to scrutinize the local area for studies to assess the current situation in the airport. It will be discussed in the next sections.



Figure 3: the radius of loss and the radius of risk

In the event of such a scenario, it has a lot of physical, human, economic and social consequences at the airport.

#### Substantive assessment of local area

In this study, the criteria for the assessment of local area is based on improving safety and security in the public area of airport and its stability against explosion in the form of use and activity

system, movement and access system, urban landscape, public spaces and physical form.

Substantive environmental system assessment was skipped due to the lack of impact on the topic of this article. After assessing the aforementioned systems, integrated analysis has been provided as figure 4.

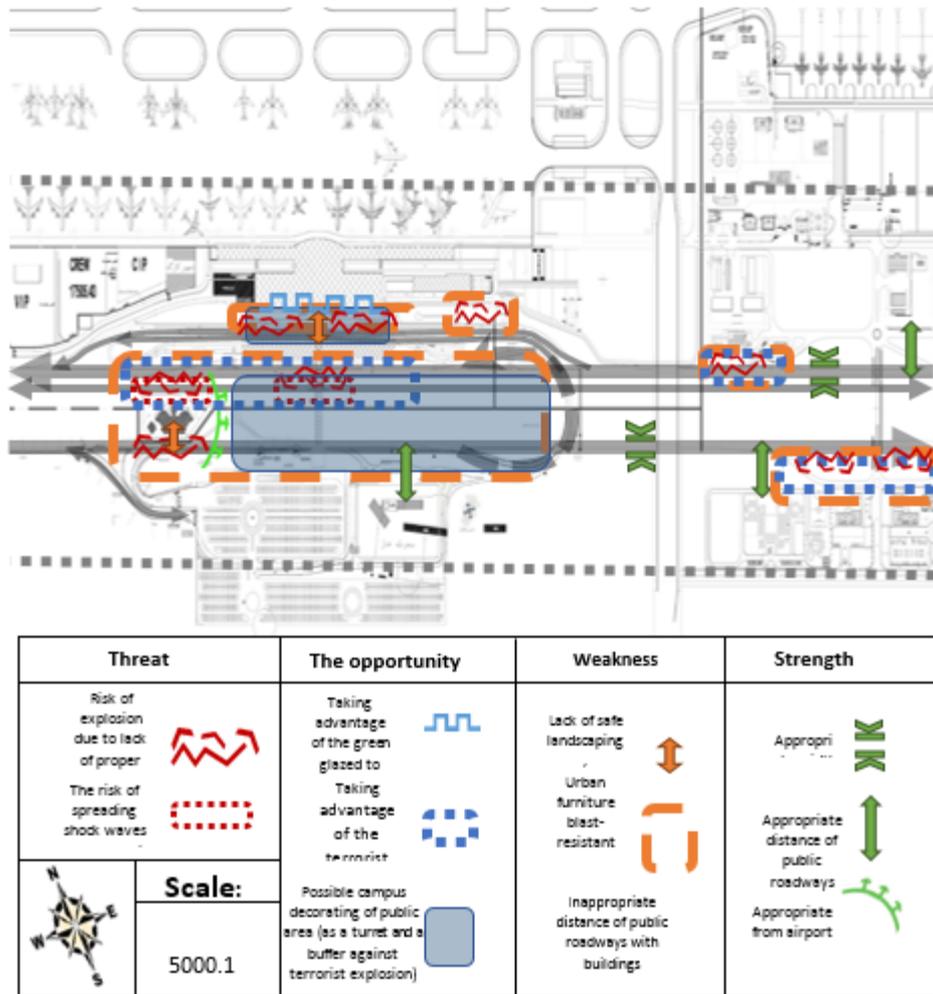


Figure 4: Integrated Analysis.

According to the assessment of the strategic area and all investigated points, it can be concluded that the local area is vulnerable in the terminal and its surrounding access, the public area between the northern and southern spine and also along main roadways and sidewalks next to the important buildings of the airport. In the event of an explosion in the above mentioned three sections, serious losses will be inflicted on the body of the airport and innocent people lives. So, it is necessary to have effective strategies about the urban design in these three sections to deal with the terrorist explosions.

**5 Urban Design Guidelines**

Design guidelines, as a means of controlling quality content, provide leading details that makes clear how a certain type of development can be implemented in accordance with the policy of designing a design. Design Guidelines is a document to control and guide the qualitative aspects of development.

**5-1 Vision Development**

Developing a vision of a place aims to offer a goal to residents for all their efforts and to describe something that is likely to be achieved in the future.

There are different ways to develop a vision statement including the "Oregon" model. Oregon Model is a process including four steps. Each of these steps is based on a simple question:

1. Where are we now?
2. Where are we going?
3. Where do we want to be?
4. How to get there?

This study is to answer the third question in the Model (where do we want to be?). Developing macro and micro goals of provided urban design guides will also answer the fourth question (how to get there?).

**5.1.1 Vision developing using the Oregon Model**

Table 1: Vision developing using the Oregon Model. Source: author

Application of framework in Imam Khomeini International Airport	Vision statement framework		
Iran as a gateway into security and peace	Implicit meaning	Meaning	Main points
Urban design resistant to terrorist explosions	Explicit meaning		
Business-services activities	Economic morphology	Identity	Details
A safe and full of relaxation place to fly to international destinations and a place for leisure time of travelers, greeters and escorts	Socio-cultural morphology.		

Sustainable urban design resistant to terrorist explosions	Physical morphology		
In and out gateway of the country in international scale	Local position	Structure	
	National position		
	Regional-international position		

**5.1.2 Vision Statement**

1. Where we want to go?

Imam Khomeini International Airport is Iran’s secure gateway in year 1400 and is an entry and exit gate of Iran in an international scale. Public areas of the airport located in northern side of spine which includes airport terminal, safe and green public areas, and metro stations have an urban design resistant to terrorist attacks and provide a safe and full of relaxation place to fly to international destinations and is a place for leisure time of travelers, airport greeters and escorts. Public areas between north and south spine that make a proper connection with the metro station, terminal, public parking, hotel building and mosque have become a convenient place for travelers and their companions to stop and spend time due to the blast-resistant urban furniture and secure corners. On the sidelines of the main access routes, especially around the important buildings, there are blast-resistant barriers designed to preserve the tranquility and beauty

of the urban landscape while making the buildings secure against terrorist bombings and not disturbing the peace of pedestrians. The main entrances of the terminal and directions to them have blast-resistant urban furniture and their glassy walls with proper exposure to the light, covered with green and blast-resistant plants and they have created a green and beautiful wall. Spine road of Imam Khomeini airport is an example of sustainable urban design resistant to terrorist attacks. It is a window to interact with the international community to lead Iran towards security and peace and to represent the genuine and peaceful spirit of the ancient land of Iran.

**5.2 Developing macro and micro goals**

2. How to get there?

In this study, macro and micro urban design goals have been developed to answer to the fourth question of the Oregon Model.

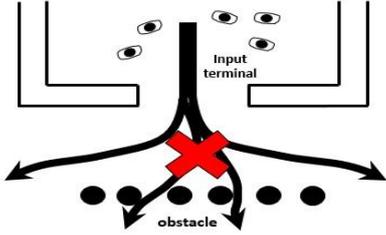
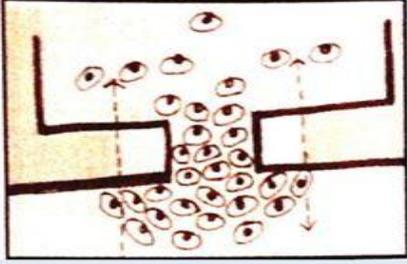
Table 2: Macro and micro goals. Source: author

Micro goals	Macro goals	
Using the terrorist blast-resistant urban furniture Creating safe places and corners in public areas	Promoting public area safety	Substantive aspect
Creating Physical barriers Discharging the blast wave properly	Stability in the terrorist blast	
Immunization of the walls Securing the physical access to the terminal	Improving the quality of the terminal entrance area	
Raising the awareness Increasing social control	Increasing interaction and citizen participation	Procedural aspect

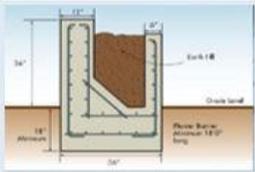
**5.3 Developing the urban design guidelines document from the standpoint of passive defense**

Urban Design Guidelines document from the perspective of passive defense has been developed in two dimensions: substantive (system of movement and access, the urban landscape system and public spaces system) and procedural. The following figures explain it clearly.

Table 3: Urban design guidelines in the system of movement and access. Source: author

Solution	Micro goal	Macro goal
<p>It is recommended to avoid installing any barriers to movement in the routs</p>  <p>It is recommended to floor streets with soft materials.                      Emergency entrance should be legible and distinct and as complementary part to the main entrance.                      It is recommended to Roof the main routes leading to the terminal (to increase safety when explosions and falling debris).                      Emergency exits size should be proper to the volume of traffic in times of crisis.</p>  <p>Installation caps should be designed in such a way that when evading, not to disturb the movement of people.                      The caps, for camouflage, should be designed in concert with floor.</p> 	<p>Secure physical access to the terminal</p>	<p>Improve the quality of the terminal entrance area</p>

Rest of Table 3: Urban design guidelines in the system of movement and access. Source: author

Solution	Micro goal	Macro goal
<div style="display: flex; justify-content: space-around;">    </div> <p>It is recommended to Use Bollard, benches and platforms resistant to explosion in front of terminal gates to prevent bombed cars from entering.</p> <p>To Use the waterfront between streets and important buildings to keep the bombed car.</p> <p>To use the retaining walls between the streets and important buildings such as telecommunication building and security building.</p> <p>To use sculpture and other works of art to improve readability of routes.</p> <div style="display: flex; justify-content: center; margin-top: 10px;">  </div> <p>To have military definition of related symptoms to improve routing and emergency exit in the terminal.</p> <p>To cover retaining walls in front of the entrances and public areas with suitable vegetation or use them to install billboards and educational banner</p>	<p>Create Physical barriers</p>	<p>Resilience in the face of terrorist explosion</p>

Rest of Table 3: Urban design guidelines in the system of movement and access. Source: author

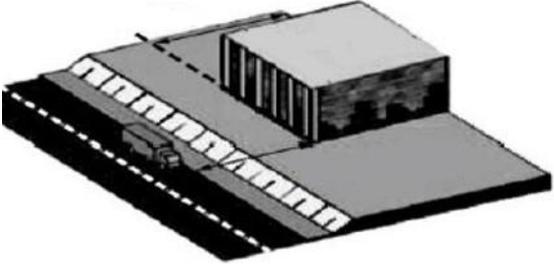
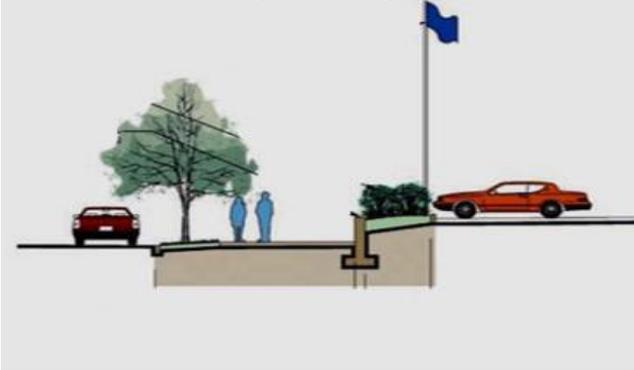
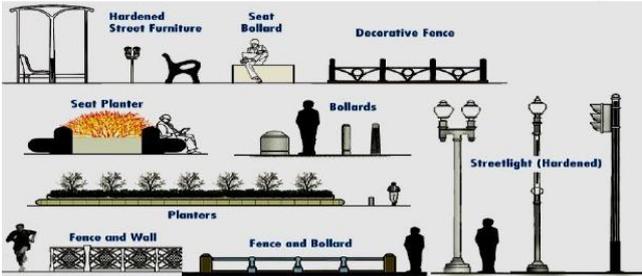
Solution	Micro goal	Macro goal
 <p>                     To Use obstacles in the form of blast-resistant hills with vegetation between the streets and important buildings such as telecommunication building and security buildings.                      To use physical barriers such as walls in the form of blast-resistant hills with vegetation around the train rails and between the terminal and control tower building.                      To create a blast wave absorbent structures with gaps in it for the proper discharge of the blast around the bridge connecting the metro station to the terminal and its underlying passage.                 </p>  <p>                     To make street with level difference in front of important buildings where there is not enough space to create retaining walls and hills.                      To use strong gardens (a combination of retaining walls with gardens and vegetation) between the streets and important buildings.                 </p> 	<p>Create physical barriers</p>	<p>Resilience in the face of terrorist explosion</p>

Table 4: Urban design guidelines in the system of urban landscape. Source: author

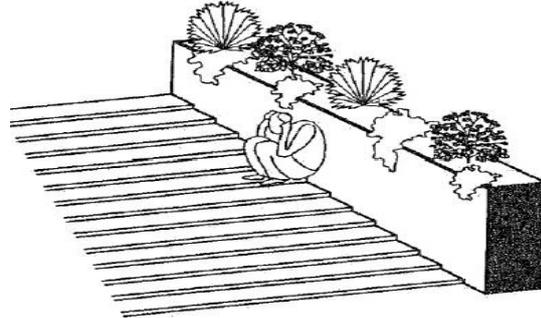
Solution	Micro goal	Macro goal
<p>To use multilayer glass coated with anti-fragmentation technology in facade of the terminal.</p>  <p>To Create filters on glassy walls of terminal (such as walls and green walls covered with plants). Providing appropriate exposure for the terminal, it minimizes the risk of glassy fragments to hit the people.</p> <p>To build the facade of terminal wall with the combination of vegetation and multilayer glass covered with anti-fragmentation technology.</p> <p>-to remove sharp and pointy elements from the walls.</p> <p>To use of blast-resistant barriers such as platforms, sculptures, benches and billboards in the terminal corridor around glassy facades as shelter against glass shrapnel.</p> <p>-to use green walls and green roofs on adjacent buildings and public areas.</p>	<p>Securing walls</p>	<p>Improving the quality of the terminal entrance area</p>

Table 5: Urban design guidelines in the system of public spaces. Source: author

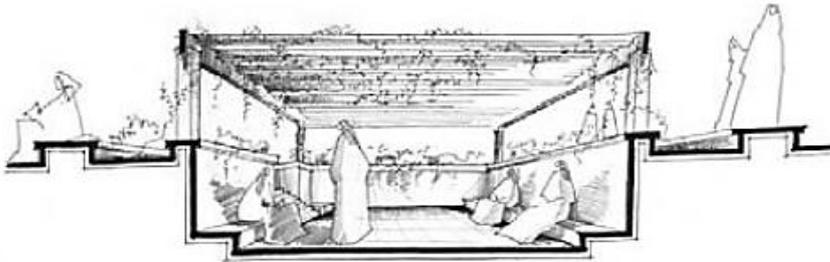
Solution	Micro goal	Macro goal
<p>To create a coordinated and blast-resistant set of urban furniture such as benches, stands, vases and etc. in public areas of the airport which act as shelter and prevent bombed cars from entering into pedestrian passageways and buildings.</p>  <p>To use smart urban furniture such as trash cans equipped with sensors that detect bombs in public places of airport.</p> <p>To use energy-efficient LED lighting which is useful in the event of an explosion and power outages.</p>  <p>To use laminated urban furniture to prevent radiation of toxic gases in case of fire.</p> <p>To use round urban furniture with no sharp corners in the public areas of the airport.</p>  <p>To use decorative elements such as statues and large stones as shelter in public areas of the airport.</p>	<p>Use the terrorist blast-resistant urban furniture</p>	<p>Promoting safety of public areas</p>



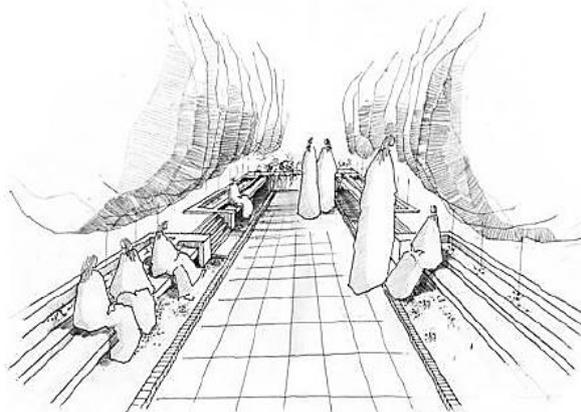
To use blast wave absorbent materials in yards and public areas.  
To floor the areas using soft materials.  
To use the short fencing walls with gaps in it for discharging shock waves.



To semi-enclose spaces and places to sit in public areas using level difference and vegetation.



To properly use evergreen trees such as pine and boxwood in the public area.



To install surveillance cameras and monitoring equipment in public areas with camouflage suits them.  
To use detection and warning systems with the ability to communicate bilaterally in the public areas.  
To create an opening in the yards and buildings.  
To create gaps in walls and retaining walls around important buildings.

			
<p>To create pilot and stepped forms for buildings in the public areas of the airport that will be built in future developments.</p>			

Table 6: Urban design guidelines in the procedural aspect.

Solution	Micro goal	Macro goal
Installing warning, informative and educational signs and having places to show educational short films in public places especially in the terminal.	Increase people awareness	Increase interaction and citizen participation
To avoid creating dark corners in public area without good vision, especially inside the airport terminal. To crate proper lighting in streets and public areas at night.	Increase social control	

## 6. Conclusion

In this study titled "urban design guidelines from the perspective of passive defense in airport environments ", we attempted to identify urban design principles resistant to terrorist bombings in public areas of airports. After studying the structure of passive defense in the field of classic terrorist threats (including bombing, suicide attacks and remote-controlled explosive cargos) and urban landscape, it was concluded that passive defense, in the area of terrorist threats related to this study, is an instrument to reduce risk and increase efficiency of airport after the terrorist explosion. In the concerned areas, urban landscape provides suitable framework for passive defense. Thus, according to the objectives of the present study and surveys conducted around them, the blast-resistant urban design that simultaneously incorporates urban design concepts and passive defense in the area of terrorist threats identified as a link to join these disciplines.

Finally, an attempt was made to introduce simple and applicable solutions in the public areas of airport environments to fill the gap of the absence of terrorist blast-resistant urban design. So, strategies were provided that are applicable in public areas of all international airports.

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## INVESTIGATE THE RELATIONSHIP BETWEEN SOCIAL PARTICIPATION OF CITIZENS IN BOTH FORMAL AND INFORMAL DIMENSIONS AND SOCIAL TRUST (CASE STUDY: CITIZENS OF ILAM CITY)

<sup>a</sup>AMIR HOSSEIN AMIRKHANI, <sup>b</sup>NEDA RAHIMI, <sup>c</sup>ELMIRA PASHMCHI, <sup>d</sup>SEYED AMIR MOSAVIAN

<sup>a</sup> Associate Professor, Payame Nour University, Tehran, Iran

<sup>b</sup> Master of Executive Management Varamin Branch, Payamenoor University, Iran

<sup>c</sup> Master of Executive Management, Varamin Branch, Payamenoor University, Iran

<sup>d</sup> Master of Executive Management, Varamin Branch, Payamenoor University, Iran

Email: <sup>a</sup>D.amir.hosein.amirakbari@gmail.com,

<sup>b</sup>Nedaya3469@gmail.com, <sup>c</sup>El.ira.pashmchi.pa@gmail.com,

<sup>d</sup>S.a.mosavian.s@gmail.com

**Abstract:** This study was conducted as survey, the population consisted of the city of Ilam and based on multi-stage cluster sampling 384 citizens aged 18 and over were selected as sample. Data were collected using a questionnaire and Spss software for data analysis used. Based on the findings, the generally low level of participation in citizen participation, and in dimensions as well, social participation of citizens in the informal is stronger than official dimension and trust of citizens is higher and the participation in general, it is also more in two dimensions.

**Keywords:** social participation, social trust, citizens, official dimension, informal dimension, Ilam city

### 1. Introduction

Public participation in autonomy and collective decision-making and participatory democracy considered as visualization component for achieving sustainable development. Civic participation is a process of self-education and participation activities, requires changes at all levels of social and psychological state of mind. This change resulted in new human and social relations (Rezai, 1996: 54). You should know that the evolution of human societies depends on the density and complexity of relationships and social interactions in other words is their network. Such a density of no confidence in the ruling leaven for the formation and sustainability of small-scale social relations, intermediate and macro, it is rarely possible is not allowed and the culture that it needs to be remembered as a culture of trust; a culture that not only generating confidence that social capital is a key motif and fundamental prerequisite for democracy, organized and dynamic social order and the development aspects of political, social, cultural and economic (Zetomka, 2007: a). Since the late 50s, followed by the failure of development programs based on the views modernization, the concept of collaboration and partnership development was developed in the literature. The failure of these programs in achieving their objectives is fostering belief that the lack of public participation in the design, implementation and evaluation of programs is causing their failure. So in response to this, the concept of partnership as "the involvement of citizens in public decision-making and planning related to it" (Roofing, 184: 2004) was considered by planners and strengthening public participation processes, as key areas of development were raised.

The exact definition of participation must be said that participation can be an interactive process between the actor's targeted action and his social environment in order to achieve certain goals defined preset. The process by which people consciously, voluntary collective and specific goals in mind and specified that leads to the sharing of community resources, they will attend. The objective of this is collaborative, cooperative institutions such as forums, groups, NGOs and others (Dehghan and Ghafari, 68: 2005).

In modern societies because of the special importance of the participation requirements of the new life phenomenon, the

extent of communities and increasing population, the variety and diversity issues and social strata has led to a strong role for participation, because people's participation in decision-making processes on the one hand and belief and commitment of managers to take advantage of the comments they and implement the decisions of the underlying potential problems and prevent potential problems will be cured; research has shown that the worst places in the world in terms of economic and social, where people do nothing but follow their individual interests and respect for justice suppressed. Development and prosperity where there is an inner feeling associated with values such as altruism (social partnership), reliability, loyalty and fair play are grown (Basu, 2006: 35-34) which is always a positive relationship between participation in the social, political and...the concept of social trust. Confidence is the central concept in the classical theories of sociology, as well as the core of modern theories of social capital and social interaction and relationships (Moeedfar and Jahangiri, 2009: 48).

In short, attitudes and values related to trust and give / take between people is particularly important. They are essential for social and political stability and cooperation. In this way, in terms of social capital on the values and attitudes of citizens insist that cooperation, understanding, empathy and fellowship with each other towards it (Newton, 67: 2008). And participation in the process of engaging all groups of people in all stages of development to emerge abilities, capabilities and therefore their material and spiritual growth and development and may therefore always been in recent years in the scientific and political circles, citizen participation in social and political discourse have tops, all of it as an important element in achieving sustainable development, democracy and debated. (Abbas Zadeh, 44: 2008) The basis for the development of responsible and informed participation of individuals or in other words, citizens in different social and political affairs and culture is one of the important priorities and if we are to be effective, requires a change in thinking and action which should boil within the community and in the formats acceptable and stable society and state crystallized.

### 2. Theoretical framework

Participation is primarily a social phenomenon that results and other social and political implications too. Participation as a social phenomenon includes the involvement of the social values of membership. When people live within the values and norms of their society, in fact, participate in social life. The interpretative school of Max Weber and his followers, is partnering with the concept of chance or possibility of cooperation. This means that it is possible for the different conditions and the various factors increase the chance, reduce or even completely be ruled out. When the object has the chance to certain expectations that people have of the behavior of others and this objective has always been expected to be realized or fulfilled. So as long as people's expectations to be fulfilled in the context of social relations, they believe that the established order is participation continued (Tavassoly, 2003: 76-74).

Huntington and Nelson participation in the decision-making process affecting citizens of the state are considered to them, the two parameters of social mobility and membership in associations and social groups provide a context for the development of social partnership (Amin-Zadeh, 111: 1997) Maurice Halbwachs's position in the hierarchy of social classes primarily on the degree of participation has higher social class or benefit from activities related (Tavassoly, 2003: 76-74).

Daniel Lerner factors such as literacy, urbanization, access to mass media and public and finally social relationships with

community participation knows and believes that these variables are more in modern society. He named the new society as participatory society (Alerner, 57: 1964). Inglehart also increase participation in advanced societies to three factors: improving the educational level and political information, change the norms governing the participation and changes in the relative value priorities. In his view, these factors have less emphasis on immediate needs and insist on the right to express an opinion (Inglehart, 378: 1994). Inglehart addition to the aforementioned factors, the relationship between trust and participation are examined. According to him, trusting each other of the factors influencing participation, because of predictable behavior can be trusted because resulting in the strengthening of the area of action and decision-making. This approach is somewhat similar approach in discussing Almond and Verba "civic culture" trust appliances democratic culture and secondary relationships are formed. Inglehart also social capital equivalent to trusted and believes that social capital is a culture of trust and tolerance that thanks to its extensive network of voluntary organizations grown. He believes the network is the result of people's trust in one another, rather than people's trust by-product of this forum. Patriotic people, who trust each other, communicate with each other to sports groups to work in various positions, form an association and thereby rely more on each other (Rose, 78: 1999). The Putnam in strengthening cooperation and participation in society, trust is an essential element and not an element of involuntary and unconscious. (Putnam, 2001: 292) is located in Putnam believes the high level of participation is what makes confidence that is created in the form of social and cooperative collaboration (Jadj, 1: 2003)

Trust is required to predict the behavior of an independent actor. In small communities and interconnected this prediction is based on something done and Bernard Williams calls it sincerely trust, the confidence that an intimate acquaintance with the individual. But in larger and more complex societies or indirectly from a trust impersonal trust is essential (Putnam, 2001: 292). According to Giddens, in modern society, people have the time / place to be most of the time, they need more confidence. In pre-modern societies that have local character and more at the local level and face to face interactions occurred, naturally there is social trust relations; but in large communities and extensive social relations are time/location far done and individuals involved in these relationships are less know each other face to face, very dependent on trust. (Taleghani, Farhangi, Abedi, 92: 2010) Giddens, trust described as ensure the reliability persons or relying on quality or character of a person or the authenticity of the statement (Giddens, 1999: 37).

He trusted the existence of a sense of security that the transfer of the individual human being, in a climate crisis and a heart full of potential risks improves. (Giddens, 1999: 63) Giddens, confidence of the main elements of modernity knows and believes four local context trust, that is, kinship, community, tradition and religious cosmology pre-modern cultures have mastered, while in modern times, trust in abstract systems, symbols and systems of this type of trust is a bachelor (Giddens, 2001: 120). It should be noted that many schools have found a strong correlation between trust and democracy in society. They say trust a prominent role in the commitment to sustainable democracy plays in different areas; the schools also beneficial social trust as a source of unity and facilitate cooperation for mutual benefit in the fall. (Lee, 585: 2008), on the other hand,

some schools believe that generalized trust and social capital, people to join voluntary associations and engaging in civic activities is encouraging (Parks and Shane, 18: 2003). Finally, to imagine a world without trust Cook, hard life and social order breaks and society in the regulation and supervision of institutions that typically produce and reinforce provide the organizational conditions for cooperation in the community, need to maintain social order, if uncompromising performance to run (Cook, 5: 2001)

With the backing theory of conceptual model study is designed as follows:

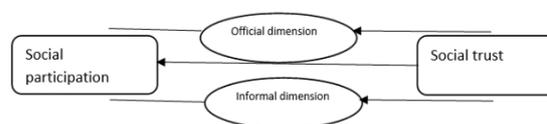


Figure 1:

Based on the above hypotheses are designed as follows:

1. There is relationship between social participation and trust of citizens.
2. There is relationship between trust of the citizens and their social participation in official dimension.
3. There is relationship between trust of the citizens and their social participation in informal.
4. There is difference between social participation of citizens in the formal and informal dimension.

**2. Research Methodology**

The methodology for this study is survey. The population of study is Ilam city and using a sample of 384 citizens in 18 years up to a multi-stage cluster sampling method was studied. The study is based on a survey, a questionnaire was used to collect the information techniques, reliability of the questionnaire in this study for analysis of alpha reliability coefficient was used and for social confidence 0.88 and for social participation 0.725 were obtained, so reliability was approved. The independent variable in this study is that variable social trust, social trust in three dimensions of interpersonal trust or an individual, generalized trust and institutional trust placed. Social participation is also dependent variable in the study of social participation in both formal (community participation in environmental activities, city Council, etc.), and then informally (in cooperation with neighbors, attending delegations, mourning, etc.) are examined. Finally, using the Spss software (Pearson correlation coefficient, t-test ...) to analyze the data studied.

**3. Findings**

**3.1 Descriptive statistics of variables**

In Table 1 Descriptive statistics of variables social participation, social partnership (informal), social partnership (formal) and social confidence shows that social participation in the informal rather than after it is official.

Table 1: Descriptive statistic of variables

	frequency	mean	standard deviation	standard error	minimum	maximum
social participation	315	27.03	9.20	0.518	12	60
social participation (official)	334	11.44	4.82	263	6	30
social participation (informal)	360	15.78	5.20	0.274	6	30
social trust	324	53.75	6.56	0.365	27	73

Test hypotheses

The first hypothesis: there is relationship between social participation and trust of citizens.

According to Table (2) the results of Pearson correlation coefficient value (0.373) and significant level of Sig=0.000 can be considered a significant proportion of the correlation trust; this means that the higher the level of social trust citizens, they are also more social participation and the hypothesis is confirmed.

Second hypothesis: there is relationship between trust of the citizens and their social participation in official dimension.

According to Table (2) the results of Pearson correlation coefficient value (0.303) a significant level of Sig=0.000 means

Table 2 The correlation coefficient between the social trust of citizens and social participation, social partnership (formal) social participation (informal)

hypothesis	independent variable	dependent variable	correlation coefficient	amount	significant level	error
first	social trust	social participation	pearson	**0.373	0.000	05%
second	social trust	social participation (official)	pearson	**0.303	0.000	05%
third	social trust	social participation (informal)	pearson	**0.381	0.000	05%

the higher the level of social trust is higher citizens, the participation in the more formal, and this hypothesis is confirmed.

The third hypothesis: there is relationship between trust of the citizens and their social participation in informal.

According to Table 2 Pearson's correlation coefficient with (0.381) and significant level of Sig=0.000 can be considered a significant proportion of the correlation coefficient, this means that the higher the level of social trust citizens, the participation in the more informal and the hypothesis is confirmed.

Fourth research hypothesis: there is difference between social participation of citizens in the formal and informal dimension.

The results of the t test and differences in the relationship between social participation of citizens in both the informal to the formal dimension with a significant level of Sig=0.000 implies acceptance of the hypothesis H1, this means that the amount equal to Sig=0.000 and given that this amount is smaller than 0.05, it can be considered a significant proportion of the correlation coefficient, this means that the social participation of citizens in the informal to the formal dimension where there is a hypothesis is confirmed.

Table 3. Test of difference between social participation of citizens in the informal and formal

	correlation coefficient	amount	degree of freedom	significance level	error
T test	official participation	43.354	333	0.000	05%
	informal participation	57.561	359		

#### 4. Discussion and Conclusion

The main purpose of this article is check the status of citizen participation, seeks to accomplish the following have also been studied: check the status of formal and informal aspects of social participation among citizens, citizen participation and trust in their social relationships, the relationship of trust with participation in formal and informal dimensions. As noted in the findings, citizen participation is generally low. This result is not satisfactory result for officials and planners and, of course, is a result of numerous factors and has the ability to review and empirical research, the variable in this study the effect of trust in the society. The social participation is addressed. In the present study social participation of citizens in both formal and informal been evaluated. Based on the results of citizen participation in official later than after a small amount is informal; An explanation for this result can be represented like this and management ladder is still a society from top to bottom and the role of citizens is not much clarity and involvement are effective, this task is the responsibility of national authorities/local communication channels with citizens to determine and the influence of citizens are strongly urged to plan goals and so the society from top to bottom with the management ladder from the bottom up change management that will definitely succeed. As

has been the social participation of citizens in terms of strength is more informal, it can be said as regards the informal cooperation among citizens is more the result of communication and interaction with each other official communication with agencies and organizations, elements such as empathy and understanding between the citizens affected this study, the influential elements of trust in each other as we have studied and studied. Based on the analytical results, the average amount of trust between citizens and the rate is positively related to social participation. So should strive to increase the level of trust in society that promotes social participation of people in particular will be in the next official and subsequently saw the development of local /national society. Finally, to explain the relation between concepts citizens, civil society and contribute to interact with different levels of trust in society, it can be discussed with the theory of "Stuart", "Lister" and "Denison" finished. The three theorists, in the order of a few key concepts related to their use. The three key concepts are: Citizen of local government and urban (Stewart), the practical realization of the rights of citizens in the local community and municipal (Lister) and social justice at the local level (Denison). (Nejati Hosseini, 2001) According to Stewart, the most important task of the authorities and local governments is "citizenship". Citizen of the facilities, and facilities necessary mechanisms for citizens, they are entitled to their civil rights, and also being able to appropriate

tasks and duties of the citizens in the local community play. Lister also that the citizens of the Stuart should be practical in order to fulfill citizens' rights to Marshall (civil rights, social and political) provided. Denison with an emphasis on social justice in local and municipal level there is a relationship between citizens and local governments and urban close and the role of local governments and municipal social justice at the local level. Based on what was said identity of the citizen as an acquired identity, the interaction between citizens and official organizations and civil society takes shape. Both sides of this engagement, rights and obligations that it cannot be achieved without a commitment a democratic society to expect. Citizenship certain value system and behavior requires that participation and a sense of belonging to society is its most important feature.

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## EVALUATION OF THE CORRELATION BETWEEN CASH FLOW AND CREDIBILITY RISK IN THE KMV MODEL AT THE SAMAN BANK

<sup>a</sup> ABBAS JOZ TOSI, <sup>b\*</sup> HAMID JAMSHIDI

<sup>a</sup> Master of Accounting, Islamshahr Branch, Islamic Azad University, Tehran, Iran

<sup>b</sup> Assistant professor, Islamshahr Branch, Islamic Azad University, Tehran, Iran

Email: <sup>a</sup>abbas.joztosi1@gmail.com, <sup>b</sup>h.j.jamshid@gmail.com

**Abstract:** This study evaluates the relationship between cash flow and credibility risks. Evaluation of theories in collect with data strategies is published by way of reports of the stock exchange and the Modern Strategies software at the Saman Bank. F statistics showed that the possibility for model prediction is confirmed using the panel method. Meaningful correlation was found between cash flow and credibility risks in the KMV model. Additionally, meaningful correlation exists between level of cash flow and power of credibility in the Saman Bank with a 0.03 coefficient. Also meaningful and positive correlation exists between increase and promotion of profitability in the Saman Bank and granting of facilities to rightful customers with a coefficient of 0.06.

**Keywords:** Credit Risk, Cash Flow Risk, Saman Bank

### 1. Introduction

Now a day, cash flow management is one of the greatest challenges faced by today's banking system. The main reason for this challenge is that most banking resources are financially procured by way of short term deposits. In addition, banking granted facilities are spent for investment in assets that have a relatively low fluidity grade (Rostamian & Haji Babaii, 2009). The importance of risk management leads to its increased value for financial agencies. In addition, bitter experiences of some countries such as south-western Asian countries or even western countries leads to increased attention of directors and law makers towards this topic. Political and economic instability in the world due to events such as emergence of information technology and creation of rapid changes in banking environments has doubled financial agency risks such that these factors lead to increased importance of risk management and attention of researchers to this arena. Adequate performance of each risk management responsibility needs strong and scientific tools. Banks face various forms of risk from among which four credit, cash flow, market and operational risks exert the highest amount of harm to their corpus (Ardakani, 2014). Credit risk is important and sensible in monetary and credit organizations because resources used for allocation in fact constitute debt of monetary organizations to asset holders, people and banks and their lack of fluidity can weaken the power of accreditation and payment of debt particularly as mentioned in the balance sheet and credit facilities as due sums and private savings accounts are considered as future endowment. In other words, collection of debts is impossible at multiple time points but payment of endowments (savings) is mandatory at each stage. Otherwise, the monetary organization will encounter bankruptcy (Ebrahimi & Colleagues, 2009).

Additionally, fluidity risk is also one of the most prevalent risks that banks encounter and correct management of cash flow with the purpose of preventing wasting of capitalization opportunities, use of excess fluidity for investment and granting of new facilities for acquisition of increased return, preparedness for encountering situation of crisis and deficit in cash resources is a necessity. For correct management of fluidity, it is necessary that appropriate tools and effective factors for this task are identified (Jaiswal, 2010). Financial crisis (2008) showed that serious increase in delinquency alongside with decrease in and omission of bank fluidity leads to serious problems in the financial system. In an FDI (Federal Deposit Insurance Corporation) report, the main reason for bankruptcy of close to half of 251 trade banks who have announced it between August 2007 and September 2010 has been decreased fluidity and lack of availability of facilities.

Maybe this topic by itself is sufficient for analysis of internal performance of the connection between to risk factors. In addition, the classic theory of micro economy in banking confirms close correlation between fluidity and credit risk (Imbierowicz, 2011). The main purpose of this research is determination of the relationship between the risk of fluidity and credit in the Saman Bank based on the value at risk. Additionally, the test of validity of the hypothesis of peaceful life cycle of the statistical sample is of statistical significance. If the hypothesis of this research is supported, one can with more especial attention to organizational space and better planning significantly help in the regard of desired implementation of management of fluidity of banks in this country.

### 2. Theoretical Bases of the Research

In past theoretical research, various classifications of risk have been presented. Based on the opinion of Sinkey (1992), bank risk and its management focuses on three credit issues of credit risk, interest rate and fluidity (Modares & Zekavat, 2003). Greuning and colleagues (1999) in a research in the World Bank have presented another classification of risk. This classification despite being introduced specifically with regards to risk evaluation in banks, topic and content wise capability of application for other trade institutes and organizations is also accomplished. Greuning in this model makes reference to the risk of events that in a way considers meaning of positive and negative changes in future interests and applies to four classes of risk financial, operational, business and incidental.

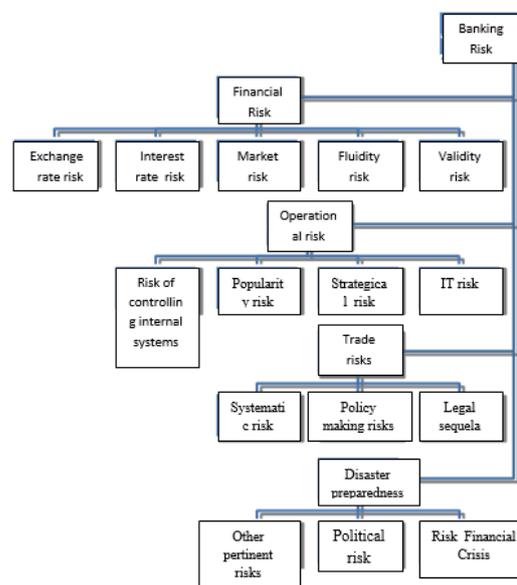


Figure 1. Analysis of risk of Banking (Greuning and Bratanvic, 2000)

Financial risks are those that are strongly dependent upon each other and in total increase overall bank risks (Asadipour, 2009). They are subdivided into two classes specific and market risks. Specific risk includes cash flow risks, credit risk, risk of capital structure and market risk includes interest rate, cash exchange and price fluctuations (Joel, 1999).

Various definitions of cash flow risk should be discussed as follows:

Cash flow risk is the inability of the bank to provide sums for granting of facilities of timely payment of responsibilities such as savings.

This risk emanates mostly from structure of assets and debts and its main source is lack of time compatibility between input and output channels to the bank. Therefore, cash flow risk can be divided into two group fluidity risk of assets and resources (Crouhy & Mark, 2007).

Cash flow risks of assets refer to inability of banks to sell their own capital to provide monetary needs that are not accounted for. The resource fluidity risk is also related to lack of absorption of the resources by banks in its regular way (such as

attraction of savings or use of facilities and credit lines to banks) (Asadipour, 2009).

Cash flow is availability of cash sums or their equivalent. Therefore, it can be stated that cash flow risk is unpreparedness of the bank in provision of facilities or timely payment of its responsibilities (Banks, 2007). A bank has fluidity when it can achieve with an acceptable expenditure sufficient sums both by way of increased debts and transformation of cash assets to money rapidly (Falconer, 2001).

Risk Management: In Table 1, various risks in banking systems and their methods of management have been presented (Mehrabani, 2010).

Table 1. Various risks in banking systems and their methods of management

Methods of Management	Various Kinds of Risk
Creation of appropriate structure for loans and necessary precautions for protection of the interests of loaners, use of credit derivatives with facilities contracts, periodical reevaluation of banking assets, management of combination of facilities due to events that have occurred in the market or acquisition of further proof.	Credit risk
Evaluation, experiment and confirmation of announced market risks including interest rate, exchange, moderation and flow risks.	Market risk
Coverage of harms resulting from negligence and lack of efficiency of human resources, inefficiency of security measures, controls and technology, harms resulting from lack of awareness or lack of correct information, communications, executive risk of contracts and statutes and risk of trust and credibility with focus of control in reactive operations. This control aims to prevent any damages to information and on the other hand to resist access of exploiting individuals.	Operational risk
Estimation of the bank's cash needs in the future. This estimation can be performed based on the following three methods: estimation based on resources and use of cash sums, estimation based on structure of assets and debts and speed of their transformation to cash sums and estimation based on cash flow indices.	Cash flow risk

Credit risk: lack of commitment to guarantees by those who receive facilities (loans) or the second party to the banking contract based on criteria agreed upon in the agreement.

## 2.1 The KMV Model

One of the most applicable revising models is the Blake-Shultz-Merton which in practice improves this model and is one that has been introduced by the Moody Company and is known as the KMV-Merton approach. This approach with moderation of the base BSM model is used for various debit groups and with various bills. According to this approach, solving of concurrency equations if the market is very fluctuating can lead to incorrect estimation and possibility of diagonal negligence. For this reason, KMV applies more complex repetitive strategies as compared to the BSM model in estimation of company value and its ups and downs.

In computation of possibility of negligence, the KMV-Merton approach instead of using interest rates without risk uses the expected return of company assets and instead of the boundary of error of the base model (B) uses a new negligence boundary which is equivalent to the current debt plus half of long term debts. Additionally, the value of the company stock (E) is directly estimated by way of the market. Next, the estimated sums are entered into the concurrency equations of BSM and the values for company value and return fluctuations are estimated and the distance to error is computed.

For the purpose of solving the optimal boundary of error in the KMV-Merton approach, Lee (2011) using the genetic algorithm endeavored to redefine the optimal boundary of this model. Lee's idea (2011) was that the error boundary can be different from one country to another and even within industries. Therefore, the main purpose of Lee's goal (2011) was introduction of a model that can more effectively and simply predict bankruptcy in the country of Taiwan. Lee (2011) named

his model GA-KMV and defined the boundary of error as follows:

$$DPT_{GA-KMV} = \alpha * LD + \beta * SD \quad (1)$$

LD and SD are long term and short term debt respectively. The purpose of Lee (2011) was estimation of the optimal coefficients for these variables using concurrent use of the genetic algorithm and the Blake-Shultz-Merton concurrency equations model system. It should be noted that the KMV-Merton approach considers the short term debt coefficient to be one and the long term one to be 0.5.

## 2.2 Cash Flow Risk and Credit Risk

New research has made reference to financial crisis (2007-2008). The hypothesis of positive correlation between cash flow risk and credit risk is thus confirmed. Examples of these researches are those of Diamond and Rajan (2003), Haigh and Iksoung (2010) and Arshia and Visvanatan (2011). Ambervitch and Rach (2011) in a research titled "Correlation between cash flow risk and credit risk in banks" evaluate the mutual relationship between cash flow risk and credit risk in all trade banks of the United States of America in the years 1998 to 2010.

In this research several indices of differentiation for credit and cash flow risks have been used in multiple analyses so any kind of probable correlation between these two risks are identified. In the first stage, a similar model is used for evaluation of the concurrent and non-concurrent correlation between two sources of risk in American banks. At the second stage, cash flow risk reaction in response to credit risk environment changes outside of the bank was evaluated. The reason is that it is one of the most prominent cases of financial crisis in 2007. At the last stage, distinct and combination effects of credit and cash flow risks on probability of bankruptcy of the banks was computed

using the Log it test model for all 254 trade banks. Results showed that a two ways positive correlation but a weak one exists between credit and cash risks (these findings have been obtained based on utilization of specific bank risk scales). Analyses of cash flow within banks and credit risk external to the bank confirms strong and positive correlation between these two factors. Ultimately, it was shown that both sources of risk not only independently but also together influence probability of bank error.

Diamond and Rajan Mali (2007) in a research titled “Risk of cash flow, creation of cash flow and fragility” have made the assumption that assets do not have capability of fluidity and granting and acquisition of facilities is also a topic based on ability and knowledge of an individual. The bank receives money from depositors and can mortgage this loan money. A problem arises when numerous economic projects financially procured by way of facilities are unable to successfully pay back their facilities and the bank is unable to respond to the demand of depositors. Therefore, banks pay higher interest to depositors to absorb their capitals. Additionally, granting of facilities with lower interest rate is surrendered and benefactors are requested to return their loans and ultimately projects that have been financially supported by way of un- returned facilities cannot achieve high value (therefore, the value of facilities is also decreased).

Yet, with this decrease in value of assets, increased numbers of investors remove their capitals from the bank. Therefore, the main conclusion is that with lack of repayment of facilities, higher credit risk and depositor take over lead to higher risk of bank other funds. With attention to research and the fact that now a day cash flow management is one of the most important challenges encountered by banking systems, we wish to identify the main reason for this challenge. The reason is that most resources of banks are financially procured by way of short term deposits. In addition, facilities granted to banks are spent on investment in assets such as the stock exchange (Rostamian & Hajibabaii, 2009).

Therefore, for higher understanding of banking risks and factors influential on them, this research aimed to respond to the question that “Is there a meaningful correlation between fluidity risk and credit risk in the Samman Bank?”

**3. Research Methodology**

The method of this research when it comes to data collection and implementation was a descriptive study and statistical analysis was of correlation type. Correlation between variables was investigated retrospectively. In this research, statistical population included the member companies accepted in the Tehran Stock Exchange that have had taken advantage of short and long term financial facilities of internal banks. Statistical sampling has also been non-randomly and by way of screening. In other words, selection of sample members is performed by way of omission of newly accepted companies and those with

prolonged contractual interruptions (more than 70 days). Additionally, data was collected from published reports of the stock exchange between the years 2005 and 2014 and searching the Rahavard Novin Software. Data description was performed using distribution tables and histograms and pie charts. Additionally, for better presentation of the data, indices of central tendency and distribution were taken advantage of. In this research, hybrid of asset-debit of banks that have been defined and quantified using financial ratios and indices was assigned as the research independent variable and cash flow and credit risks computed by financial ratios as dependent research variable. The method of hypothesis testing in this research was the Data Time Series Panel Method and the Eviews 7 software was utilized. Research model is as follows:

$$ER_i = R_F + (ER_M - R_F)\beta_{Mi} \tag{2}$$

Ri: Assets return, Rf: Riskless return, Rm: Market return, E: Mathematical error. The market beta for each stock is extruded form the following formula:

$$\beta_{Mi} = \frac{cov(R_i, R_M)}{var(R_M)} \tag{3}$$

Therefore, for testing the first model regression is used as follows:

$$R_i = a_0 + a_1\beta_{Mi} + u_i \tag{4}$$

In which:

a0= riskless return rate or RF, a1= stock return in excess ERM-RF, Ri= Observed stock return I, vi= Expected error or Ri-ERi

**4. Research Findings**

**4.1 Evaluation of reliability of research variables**

Using the method of estimated ordinary least squares (OLS), it is tested whether it is equal to 1 or not. The null hypothesis in the Philips Prune Test states that the variables under consideration lack reliability.

To reject the null hypothesis and reliability of each of the variables, it is sufficient that significance level is less than 0.05. Thus, results of reliability test for the panel data in Table (2) for both variables show complete stability over time.

Table 2. Results of reliability test for model variables

Philips Prune Test			
Variable	Statistics	Significance level	Result
Stock return	-6.85	0.000	Completely stable
Market beta	-7.39	0.000	Completely stable

In this research, the model has been estimated using hybrid data from banks under study. Initially, it should be determined whether in general there is need for consideration of the data panel structure (differences or specific bank effects) or data relevant to various banks can be obtained by the monetary

method. To make a decision, the F statistics is used. Acceptance of the assumption of equality of stable specific bank effects and ultimately selection of the classic method or panel data method is undertaken. The Chow test (F statistics) has been shown in Table (3). Therefore, with a confidence of 95%, the null hypothesis can be rejected and the opposing hypothesis (H1)

is accepted. Therefore, it can be stated that possibility of model estimation using the panel method is confirmed.

Table 3. Results of the Chow test

Test statistics	DOF	Significance level	Result
4.92	(179, 19)	0.000	Use of the panel method

**4.2 Estimation of need for another model**

Considering that the null hypothesis for the Chow test stating equality of distances from origins, to decide whether constant effects or random ones exist or not, the Hausman test is used. As shown in Table (3), it is noted that significance level for the Hausman test has been calculated at higher than  $\alpha=0/05$ . Thus, with confidence of 95%, random effects cannot be supported and

probability of model estimation using random effects is not confirmed.

For evaluation of significance of the regression model, the F statistics is used. To reject the null hypothesis and conclude based on the model significance, it is sufficient for significance level to be less than 0.05 which is shown in Table (4). Additionally, the Durbin-Watson statistics if close to number 2 shows lack of statistical error in the model. With consideration of explanations given in the following table, model main correlation coefficients are shown in Table (5).

Table 4. Results of the Hausmann

Test statistics	Degrees of freedom	Significance level	Conclusion
1.17	1	0.27	Existence of constant factors

Table 5. Results of fitness of the regression model using constant effects

R= Response variable				
Independent variables	Regression coefficients	Standard deviation	Test statistic	Significance level
Formula constant (0)	0.29	0.08	3.37	0.000
B	1.95	0.30	6.40	0.000
Test statistic F= 10.47, Significance level= 0.000, Determinant coefficient= 0.53, D.W. statistics= 1.93				

Table 6. Main estimation parametric

Statistics	Value	Conclusion
Durbin-Watson	1.93	Lack of series correlation in the model
F	10.47	Model goodness of fit
Determinant	0.53	53 <sup>rd</sup> percentile changes in model dependent variable

**4.3 Correlation between cash flow and credit risks**

For evaluation of the correlation between cash flow and credit risks, initially two diagrams related to the two computed risks via the KMV model were drawn (Figure 2 & 3) and to evaluate the correlation between these two variables the Pearson's correlation test was applied. Before model estimation, model variables' correlation diagram can be very useful. Correlation shows linearity of model components. If the Pearson's correlation coefficient is higher than 0.7 and meaningful, then probability of linearity exists in the model. In the following tables, correlation between evaluated variables has been evaluated using the Pearson's test. In Table (7), level of correlation has been shown in the first row and its significance in the second. If significance is less than 0/05, the correlation under investigation is statistically meaningful.

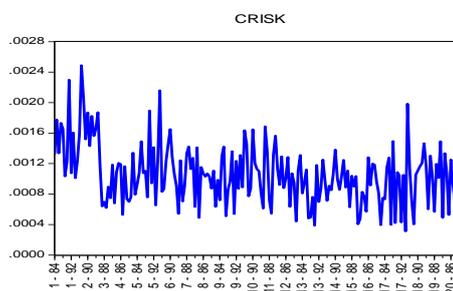


Figure 2. Credit risk

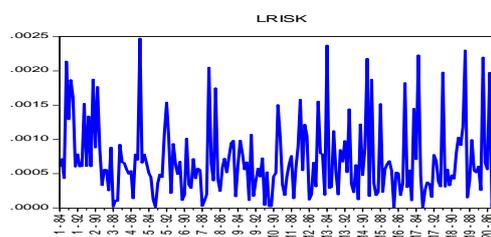


Figure 3. Cash flow risk

Table 7. Correlation between model variables

correlation	profitability	efficiency	credibility	cash flow risk	facilities	cash flow	credit risk	market beta
profitability	1.0000							
efficiency	0.964780 0.0000	1.0000 ----						
credibility	0.038203 0.0012	0.032289 0.0091	1.000000 ----					
Cash flow risk	0.094757 0.0020	0.119112 0.0130	0.035757 0.0052	1.0000 ----				
facilities	0.600000 0.0000	0.964780 0.0000	0.038209 0.0011	0.094758 0.0002	1.0000 ---			
Cash flow	0.420000 0.0000	0.964780 0.0000	0.038209 0.0012	0.094757 0.0010	0.330000 0.0000	1.0000 ----		

Credit risk	0.141228 0.461	0.233105 0.0009	0.194701 0.0057	0.102006 0.0006	0.141221 0.0461	0.141221 0.0461	1.0000 ----	
market beta	0.019541- 0.0036	0.010062- 0.0075	0.461438 0.0000	0.010258- 0.0051	0.019531- 0.0037	0.019533- 0.0037	0.188689 0.0075	1.0000 ----

Existence of correlation between variables signifies meaningful correlation between them during the period of investigation. Table (6) demonstrates that we can confidently state a meaningful correlation exists between cash flow risk and credit risk computed by the KMV model.

#### 4.4 Evaluation of the main hypothesis of the research

Main hypothesis: Meaningful correlation exists between cash flow and credit risk computed by the KMV model (table 8).

Table 8. Evaluation of the correlation between cash flow and valuation

Correlation coefficient	Significance	Conclusion
0.102006	0.0006	Confirmation of the first main hypothesis

#### 4.5 Minor hypotheses

Meaningful correlation exists between level of cash flow and valuation power in the Samman Bank (table 9)

Table 9. Evaluation of correlation between cash flow and valuation

Correlation coefficient	Significance	Conclusion
0.03	***	Confirmation of the first main hypothesis

Meaningful correlation exists between increase and promotion of profitability in the Samman Bank and granting of facilities to legal customers (Table 10).

Table 10. Evaluation of correlation between profitability and granting of facilities

Correlation coefficient	significance	conclusion
0.60	***	Confirmation of second main hypothesis

Meaningful correlation exists between rank of credit risk of legal customers in the Samman Bank and promotion of efficiency of the bank (Table 11).

Table 11. Evaluation of correlation between efficiency and credit risk

Correlation coefficient	significance	conclusion
0.23	***	Confirmation of third main hypothesis

## 5. Discussion and Conclusion

Based on the results obtained, credit risk with a coefficient of 0.1 is equal to 1.0 and has positive and meaningful effect on cash flow risk. Meaningful correlation exists between level of cash

flow and valuation in the Samman Bank with a coefficient of 0.03. Positive and meaningful correlation exists between increase and promotion of profitability in the Samman Bank and granting of facilities to legal customers with a coefficient of 0.6. Meaningful correlation existed between credit risk ranking of legal customers in the Samman Bank and promotion of bank efficiency. Results of this research agreed with studies by Ardakani (2014) and Jafari and Fakhari (2014) and Gholami and Salimi (2014). Considering the results obtained and connection between credit risk and cash flow risks, creation of interaction between these two risks and correct planning in this regard is among most important duties of directors and supervisors of banks. Therefore, it is necessary that the financial organization takes steps in line with decreasing probability of unwanted risk arenas, pricing and more correct valuation, increased ease and accuracy in decision making, decrease in costs of capital and overall decreasing harm from influence of connection between risks and towards a unified risk management.

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## REVIEWING THE SOCIAL CONSEQUENCES OF ECONOMIC POLICYMAKING OF GOVERNMENT FROM 1995 – 2013

<sup>a</sup>HAMID BEYRANVAND, <sup>b</sup> NILOUFAR MIRZAEI,  
<sup>c</sup>FATEMHE JAVAHERI

<sup>a</sup> Master's degree of social science, Kharazmi University, Tehran, Academic

<sup>b</sup> Master's degree of social science, Kharazmi University, Tehran, Academic

<sup>c</sup> Associate professor and Academic staff of Kharazmi University

Email: <sup>a</sup> hamid.6525@yahoo.com, <sup>b</sup> nili.mirzae@gmail.com,  
<sup>c</sup> Fatemeh.javaheri.fg@gmail.com

**Abstract:** In this study the impact of social factors on social disturbances in different provinces of Iran, analyzed through EViews software, econometrics modeling and panel data by the use of data gathered in twenty years from 1995 to 2013 from relevant organizations in the subject of "unemployment, inflation, poverty and inequality in incomes" and social disturbances such as "divorce rates, addiction and robbery". The process of change in economic indicators and social consequences, analyzed. Merton's social structure and anomie theory, constituted the theoretical framework of this study. Descriptive results showed that by the growth of economic indicators, the rate of social disturbances such as divorce, addiction and robbery has been increased. The impact of unemployment and next to it inflation was greater than rest of the economic indicators.

**Keywords:** divorce, addiction, poverty, inequality of incomes, inflation, unemployment, economic policymaking

### 1. Introduction

Recession can be taken into account as the main factor of social insecurity. Economic instability, inflation, employment crisis, illegal social processes formation, the period of social disturbances and decrease of social solidarity, all follow fundamental changes (Balsas, 2001:12; Kimmel, 1998:71; Kallberg, 1986:19; Kingemam and Budge, 1994: 51). Meanwhile, one can find out the great role of government on economy and its consequences, by taking a brief look at history of economic thought. Economic policymaking of government as the main factor of economic development, mainly cover political, social and cultural facets too (Akhondzade et al. 2010). Petras believe, inflation is mainly the product of government policymaking and its social consequences are as the same as wars (Momeni, 2011). In contemporary history of Iran's economy, the Government played the role of "prime impetus", both in respect to the domain and depth of the economic involvement (Shafiee & Hosseini, 2008). On the other hand the proper bedrock for privatization and free market has not yet been prepared (Talebnia & Mohammadzade Solte, 2005; Ghalibaf Asl & Ranjbar Dargah, 2005; Moahmmadi, 2010; Jalilian, 2010; Heydari Kord & Zangane, 2007). Whereas, Manuel Castells believes: government as the chief economic impetus nor cause dynamism in capitalist economy nor take into account different social groups (Castells, 2001:187). Considering the economic policymaking in Iran through the intended period of time, shows that economic indicators which are related to main necessities of people are in crisis status. According to World Bank statistics, Iran is one of the five countries which experienced high rate of inflation (Pourostami and Sobhanian, 2013). Reports of the Iran's Central Bank show that the costs of tenth decile to first decile in 2014 have increased 13.6 times. Through this reports this status is due to profound stagnation, high inflation, intense inflationary expectation and increase in the exchange rate which are the consequence of inappropriate economic policies (Central Bank reports, 2014). The poverty course from 1982- 2003 indicates that the food expense of urban families decreased for 50 percent and this rate is 23 percent for rural families, which is an indicator of economic difficulties of families (Iran's statistics center, 1982-2003, According to Gharavai, 2005). The last official statistics of poverty line declared by Ministry of Welfare at 2004, was 10 million people. At 2008 14 million were under the poverty line, as declared by Central Bank's report (Quarterly of economic statistics, 2008). United States intelligent service, CIA,

In 2012 February report, declared the rate of unemployment 14 percent and Iran's Central Bank reported this rate as 12 percent. This statistics are the indicator of inappropriate policymaking of the Government through last decades. The next important question after the revolution, was this fact that, economic policymaking caused an explosion in expectation level of the people, but in the contrary this policies could not make a change in welfare of people, especially in the deprived areas (Mosala Nejhadi, 2011). Transparency International (2008), declared Iran as the rank 142, in respect of measures of corruption, which the rentier structure of the economy and the crucial role of the government, expressed to be the main reason of that (Makipour & Rabani, 2013). United Nations office on drugs and crime reported that Iran has the largest number of addicts in compare with other countries of the world. Internal statistics of addicts is in the state of flux between 2 million to 4 million (Iran's Health organization). On the other hand official statistics of poverty line at 2004, reported by Ministry of Welfare to be 10 million people. Since then, government does not reported any official statistics on that issue.

Considering this fact that through the intended period of time between 1995- 2003 the economic indicators and social injuries in Iran has not an appropriate status, and on the other hand socialist and economists (San Simon, Adam Smith, Marx, Proudhon, Durkheim, Spencer, Parsons, economic crime investigators like, Fleischer, Henry George, Bonger, Engels, ... ) underscore the fact that main reason of disruptive behaviors is in economic facilities, and accepted this fact that economic factors play a vital role in the life of society (Beheshty, et al. 2014: 102-105; Garshabi Fakhri, Mehregan, 2011; Eesazade et al. 2014), then in this study, the impacts and consequences of Government policymaking through the last two decades, constitute the main question of this study. Does government policymaking was advantageous for especial groups or had a public coverage? Does by changes in government and policymaking, social injuries has changed, either? So the main goal of this study is to review the social consequences of government economic policymaking from 1995- 2013, in respect to disturbances such as robbery, addiction and divorce in Iran's different provinces. Social and behavioral investigation on social injuries and disturbances leads to comprehension on social order and behavioral patterns and prevention and decrease in social injuries (Mahjoobi Manesh, 2001; Sarvestani, 2010), which consist the importance of this study. According to documents and statistics Iran is a problematic country and the rate of social injuries is growing, this study can be used by policymakers and those who plan in this domain, as the hazard of social injuries spread can threaten the values and leads to family breakdown, and governmental costs and either prevent development (Abdollahi, 2002:12; Sedigh Sarvestani, 2006: 28). Another urgency of this study, is the lack of comprehensive study on such a topic. But it worth to be mentioned that in the study of Georgezade and Eghbali, 2007; Sadeghi et al, 2011, the positive correlation between economic indicators with crime and social disturbances accepted.

### 2. Theoretical and experimental framework

Amartya Sen, Indian economist, believes policymaking of government should emphasize on human development and factors like justice and discrimination elimination rather than, Income as the most important factor (Mahmoodi, 2006: 773). Government through its structural abilities should prepare the groundwork of individual, social and environmental competences growth such as literacy, technical competence, health and food, fundamental facilities, competent institutions and distributing goods which are necessary for public, struggling with poverty, discrimination and preparing welfare between citizens. Through this approach, one encounters a question called, "social dumping". Lack of attention to the benefits of

social groups in economic policymaking of society means ignoring the social responsibilities by government which will have unpleasant social consequences (mosala nejhada, 2011: 206). In explaining the concept of economic policymaking, Jeymze Dioyee says: policymaking is related to the subjects and domains which will have impacts and consequences on social and economic life of widespread spectrum of citizens (Williams, 1999: 66). There's two kind of economic policymaking, pluralistic government or capitalism, and corporatism or statism. Policymaking essence of capitalistic government can be referred to as diverse, organized, multi facet and pervasive, democratic, responsible role and enhancing the economic interaction level between different social groups. On the contrary, corporatism government policymaking is on the base of large amount of government involvement, mobilization of masses, integration and absorbing different economic groups, inhibiting the social group's entrance to political domains and has a mono-facet essence. Policymaking in corporatism is in the way of maximizing the power, which means enhancing the military and ideological ability of the political organization for the sake of imposing itself to the more wide range of people and imbuing to their mind which this undemocratic essence of politics, is being guided from the outside of institutional structures (brouker, 2005; castels, 2001; mosalanejhada, 2011:37). Through the widespread government involvement in economic policymaking in Iran, the essence of policymaking inclined toward corporatism. Max Weber as one of the founders of economic policymaking theories, underscore the role of organizational factors and use of elites and technical groups in applying the economic policies, which leads to prevention from deviation in organizational behavior, planning and economic policymaking (mosala nejhada, 2011). Organization in the idea of Weber refer to a rationalistic association. This association which can coordinate the available resources and prepare the base for providing the best outcome, actually propose organizational behavior. Organizational behavior for society, elites and policymaking administrators is of chief importance, since the possibility of measuring unpredicted behavior of people is being attended and controlled. In the other words, organization can control and manipulate the unstructured behavior of elites (greiner, 1972: 138). Weber says the economic policymaking should be on the base of indicators such as "economic rationalism". Economic rationalism should lead to production, distribution, exchange and technical evolution control (Weiss, 1980: 28). Different theories has been proposed in the domain of economic policymaking, which underscore the government attention to the social benefits of people and groups in the society. In practical theory, the social consequences of economic policymaking, maximizing the benefits for different layers, classes and groups of society is under consideration (reinand Sheldon, 2007: 93; quade, 2005: 305). In the theory of justice, equality of opportunity for different groups, fair distribution of benefits, giving priority to the individual rights and social competence, individual and social freedom in the process of economic policymaking is of main importance. Welfare state theory, emphasize on the role of government involvement in economy and supporting the vulnerable classes of society at the times of crisis (kakli and vitokof, 2003: 66). The overemphasis of these theories for attending to social groups of society, indicates that policymaking of government will be successful only if take the social domain as the main focus of itself. If the policymaking of the government not be on the axis of social responsibilities, there will be dangerous social consequences for the society. Through this point of view it seem totally rational to analyze the generation and spread of social disturbances as related to economic features of those societies. As for Parsons economic subsystems, for Durkheim profound changes and anomic economic condition and division of labor, for Marx the existence of poverty and unjust distribution of wealth, for Becker (1968) the benefits not being met and expectational utility of individuals, for Judith and peter Blau (1982) and Kuhn (1995), inequality and class gap are the main reasons of disruptive behavior and growth of social injuries. From this point of view,

it's totally rational to relate the generation and spread of social disturbances to economic features of society and analyze them from this perspective (Abdollahi, 2002: 43; sheykhavandi, 1994: 69; tavasoli, 2007:140; sheykhavandi, 2007:291-292; rahgozar, 2010; mosavati azar, 2004: 60; beheshti et al. 2014; sadeghi et al. 2005; shekhavandi, 2000: 200; hosseini nejhadaT 2005; sadeghi et al. 2011; samadi, 2013; abounoori, 1997; goerge zade va eghbali, 2007; mohamadi et al. 2012; kargarbarzi et al. 2014: 5-28; Ahmadi, 2013: 19-17; momtaz, 2002: 52; Kuhn, 1995; according to sarvestav, 2010; mobaraki, 2004:74; parsons, 1942, according to ahmadi, 2005; babai, 2001, revai and others, 2010: 129; sotoode, 2014: 164; ahmadi, 2009: 61-62). Merton says, social injuries develop when the cultural values (such as financial achievement) are being reinforced a lot, but the legitimate ways of access to them is hindered (rafiee, 2001: 5-32). Society encourage accessing to some goals; but the necessary facilities for getting access to them, is no available for all members (sotoode, 2006: 129). The social structure of the society cause injustice lead to crime generation domain (bagheri, 1389:68). Merton believes, in the status of anomie that the imbalance between economic factors follow fundamental goals, such as: disruptive behavior pattern, Invention, such as robbery. Isolation and solitude: the example are the addicts and those who put an end to their marital life.

Empirical Literature Review: The researches which mentioned the social consequences of disturbance in economy include: Williams and Micheal (2012), Gilani et al. (2009), Jensen and Smith (2010), Tang and Lean (2007), Seals and nunley (2010), Agimotokean, Sandra, Haskits, Alexandra, weed, Jack (2015), Roy (2010), Amoto and Biti (2010), Hulerestein and Mouril (2011), Farzanegan and Gholipour (2010). By the results of these researches the social disturbances, economic shocks, economic deprivation and harsh economic period of time, incorrect economic policymaking, unemployment, inequality of incomes and poverty are the main factors of crime generation and robbery.

In addition, empirical research results within Iran indicate that, inflation cause poverty, unemployment and inequality; more than that, inflation causes social gap, crime generation, robbery, and decrease in life quality and welfare, deterioration of living condition and increase of immorality facets, malnutrition and increase of cost of life. The results of the researches also indicate that main reason of robbery is due to the inequality of incomes; unemployment has the greatest relation with divorce. The inflationary policies of government cause disturbances. The research which mention this fact include: Makipour and Rabani (2013), Beheshti et al. (2014), shahouli and rezaefar (2011), Mahmoodian and Khodamoradi (2010), Nasrolahi et al (2013), Mehrban and Garshasbi fakhr (2011), Abas nejad et al. (2014), Kargarbarzi et al. (2014), Isa zade (2010), Sadrol Sharafi et al. (2012), Mohammadi et al. (2012), Mehregan and Garshasbi Fakhr (2011), Fetros et al. (2013), Isazade et al. (2014), Samadi (2013), Bagheri et al. (2010), Mehrbani (2011), Kamijani and Mohammad zade (2014), Mehrban (2010), Faraji Molae (2011), Atbari (2009), Molae va Moradi (2010).

### 3. Research Model

The theoretical model is on the base of Merton ideas about social deviation formation mechanisms and economic instability with the theory of organizational rationality of Weber. In explaining the theoretical model of research, one should note to the Merton idea that according to it, instability between goals, values, and devices to reach this goals is the main reason of deviation. In addition, Weber mention to the lack of organized pattern in economic policymaking, as the main reason of economic disturbance (figure 1).

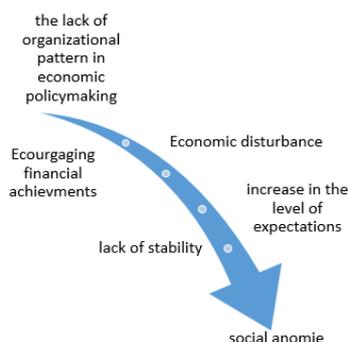


Figure1. Conceptual model of the study - Extracted from the models presented by Aaker (2001)

#### 4. Research Methodology

##### 4.1 Hypothesis

- 1- The lack of organizational and rational pattern caused deviation from economic policymaking and this fact increased divorce, robbery and addiction between 1995-2013 in Iran.
- 2- The social responsibility of economic policymaking of governments, does not progressed in the benefit of deprived layers and classes of the society.
- 3- The differences between economic policymaking of governments, had different social Consequences

The method used in this research is of secondary analysis kind, which include secondary analysis on the statistics used in this study. The data is gathered form different organizations and centers like Iran Statistics Center, Iran Drug Control Headquarters, Police Social Assistance, Department of Cooperatives, Labour and Social Welfare, Register Organization of Iran and also the calculations done by economic experts. By the use of data had gathered from this centers, inflation rate, unemployment, inequality of incomes, poverty, addiction, robbery and divorce calculated from 1995- 2013. For describing the data and course of change during this period, the Excel and Diagrams has been used. But in inferential statistics, since it was possible the used data overlap with each other or the rate of dispersion be high, and consequently exact information not be obtained, the software of Eviews and Econometrics used for two or three variables relations. Econometrics pattern has different models for data analyzing, the model used in this research is panel data. Panel data estimations has the ability of identifying and measuring the impacts, which cannot be identified easily through cross-sectional data and time series data. Generally, panel data model premise there are P unit of distinct decision which numbered from 1 to P under the index  $i$ , also there are m sequential period of time which numbered from 1 to m, under the index  $t$ , and totally there will be  $n=pm$  observation at the end. The unit of analysis in this research is the provinces of the country. Unit of observation: the necessary data for this research gathered from families through census. As the research population is the all citizens of Iran's society and in this research the census data is used as much as possible, so the there is no need for sampling. Validity and reliability: validity of the measuring device means what be measured that we expect to (Blaky, 2014). Since the data of this research is gathered by official organizations of the government and accepted by the experts of those domains, can be counted as valid. Reliability: since the data used in this research is of the census kind, and as a result change every ten years, the reliability does not consist the main issue of this research.

#### The Operational Meaning of the Variables

**Inflation:** consumer price index, is used for measuring inflation. This indicates the change of average costs of some specific commodities and services being used by families, in comparison with the cost of those commodities and services in the base year (rais dana and ghobadi, 1989).

**Unemployment:** an unemployed person, in one who is older than 10 years of age, and has three criterion simultaneously (Tajdari, 2012). First, in the reference week has not worked even for a single hour; Second, has acquired the proper requirements and preparations; third, in the reference week and three weeks before that, be in search of a job (person has done special deeds in search of wagemworks and self-employment) (Iran Center of Statistics, 2008). The index of unemployment calculated through the number of involuntary unemployed people in every year divided by the employed population of that year, multiplied by hundred (Tajdari, 2012).

**Inequality of income:** the most common used index of inequality is Gini Coefficient. Statistically, Gini Coefficient consists of the ratio of inequality income distribution to the maximum possible inequality, in a totally unjust distribution. The size of Gini Coefficient vary between zero to one hundred: zero indicates complete equality and one complete inequality (jalali, 2004).

**Poverty:** food poverty line, is the least amount of money necessary for acquiring the fundamental food needs of the family. In addition establishing an index for the least amount of food necessary for a healthy diet and life, such as 2100 calories for an adult man daily, also has an important role.

$$\text{Total poverty line} = \text{Food Poverty line} * (\text{total}) / (\text{food}) \quad (1)$$

**Divorce:** ratio of marriage rate to divorce rate, this index indicate the number of registered marriages in compare to every single divorce at a given time. This ratio calculated through the number of registered divorces divided to the marriages, multiplied by 100 and indicates that per every 100 marriages in the year, how many divorces exist (mirzaee, 2005; according to nasrolahi et al, 2013: 165- 186).

**Robbery:** the rate of robbery equals the number of cases of robbery in every year, divided to the population of 10 to 59 years of age people, multiplied by 100 (Al Emran and Ali Al Emran, 2015).

**Drug Addiction:** For calculating the rate of addiction to drug the number of addicts in every year is divided to the total population at that year, the result is multiplied to 1000 (Tajdari and zakaria, 2006).

5. Results



Figure 2. The inflation, poverty and inequality of income course from 1995- 2013

Inflation: by comparing the inflation course between different provinces in the mentioned period of time, the developed provinces had the least inflation and deprived provinces and underdeveloped provinces did not show a significant difference in their course of inflation. In comparison between governments, the rate of inflation averagely increased 10 percent in inflation course, from seventh and eighth governments to the ninth and tenth governments. Unemployment: unemployment rate from 1995- 2013 followed an ascending course. Deprived provinces had a greater unemployment rate that other provinces and the country in total and less developed provinces had least rate of unemployment. In the seventh and eighth governments the rate of unemployment in provinces distinctly and in whole the country was in state of flux between 13- 25 percent. But in the ninth and tenth government, between 2007 -2013, the unemployment course is between 20 to 34 percent, which means a double increase in comparison to two last governments. Poverty: in comparing the rate of poverty based on policymaking of governments, it should be mentioned that in seventh and eight governments the rate of poverty followed a decreasing course. This decreasing course was both at the level of provinces and the country. But on the contrary to the previous years the rate of

inflation in ninth and tenth government follows an increasing rate. In the seventh and eighth governments deprived provinces had the least rate of poverty and the less developed provinces had the greatest amount of poverty, which this was vice versa in ninth and tenth governments. Inequality of Incomes: in seventh and eighth governments inequality of incomes in all the provinces was between 30-40 percent. Whereas in the ninth and tenth governments the inequality of income rate followed a decreasing course, from 41 percent to 31. By comparing the different provinces distinctly, one should note that the rate of inequality of incomes in ninth and tenth governments, follow an ascending course in deprived regions and reach to 50 percent during these two government, and had the greatest inequality in comparison to other provinces. The less developed provinces experienced the least amount of inequality which had oscillation between 30 percent to 40 and this rate was at decrease in final years of these two government. In seventh and eighth governments inequality had not a significant difference in different provinces and the course of inequality indicates that developed provinces, had the greatest inequality during seventh and eight governments (figures 2 and 3).

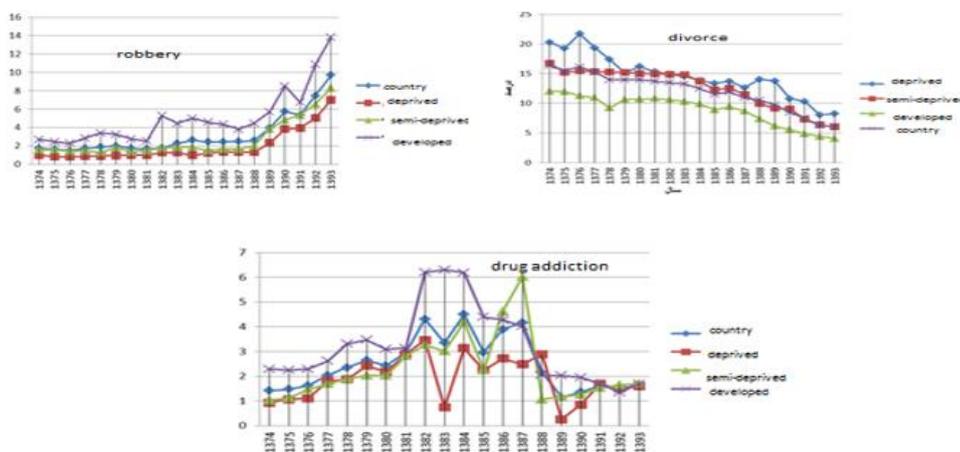


Figure 3. Robbery course, addiction and divorce from 1995 to 2013

Robbery: The course of robbery of different provinces of country according to policymaking of the government indicates that, during the seventh and eighth governments, the rate of (robbery) deprived provinces in comparison to other provinces was less and the developed provinces had the greatest rate of robbery and totally, the rate of robbery in these two governments was

between 1 to 2 percent. On the other hand, in ninth and tenth governments, developed provinces had the greatest amount of robbery and in comparison to deprived provinces show approximately more than double increase in the rate of robbery. In total, during the ninth and tenth governments the rate of

robbery had a manifold increase, and reached from 2 percent in provinces to 10 percent.

Marriage to Divorce Ratio: one of the simple but yet major indexes which analyze the marriage and divorce condition of society simultaneously, is the marriage to divorce ratio. This index indicates the number of marriages registered per every divorce in a certain period of time. In the seventh and eighth governments, the marriage to divorce ratio of developed provinces during the years 1995 to 2005 reached from 12.02 percent to 9.21 percent. This means per every 12 marriages during the first year's one divorce happened either, but in the final years per every 9 marriages only a single divorce happened. According to the statistics, in these governments the marriage to divorce ration of developed provinces with great difference was in the course of decrease and the deprived provinces had the least amount of divorce. In the ninth and tenth governments the marriage to divorce ratio of developed provinces decreased from 9.04 percent to 4.06 percent, which means at 2014 per every 4 marriages one divorce happened. In comparison with developed provinces, deprived provinces in these governments reached from 8.06 percent to 13.07 percent.

Drug addiction: According to figures 2 and 3, in seventh and eighth governments the degree of addiction was increasing, developed provinces had the greatest amount of addiction to drug. The less developed provinces had the least amount of addiction to drug, but in the ninth and tenth governments, due to the paradoxical statistics of this period of time, the rate of

addiction had great oscillation and decreasing inclination; In this period addiction of the deprived provinces is less than other provinces and the developed provinces had the greatest amount of addiction to drug. The greatest rate of addiction was between the years 2002 and 2009 and developed provinces had the highest degree of addiction. Generally, between the years 1995-2014 in the process of analyzing addiction in the country, the developed provinces had the greatest rate of addiction, and then the whole country take the second place. The less developed and deprived provinces had less addiction than the country course.

In addition, in order to analyze the simultaneous effects of independent variables (inflation, poverty, unemployment and inequality of income) on dependent variables (divorce, addiction and robbery), econometrics used distinctly; By integrating the available sets of data, we reached to the panel data. Regression coefficients, is estimated with this set of data either, and are called panel estimations.

In the above mentioned relations, c and  $\mu$  respectively indicate intercepts and are a part of model error.

Analyzing the stability of variables: a time series variable is stable when mean, variance and coefficient of its correlation remain stable during the time. For evaluating the stability of variables LLC test is used. Westerlund and Breitung (2009) indicate that, the power of LLC is more than IPS. The results of this evaluation shown in the 1-4 table.

Table 1. Analyzing the stability of variables by the use of LLC test

variable	statistics	possibility	Result
Unemployment	-1.5591	0.0595	Stability at the level of 1%
Inflation	-2.0956	0.0181	Stability at the level of 1%
Poverty	-2.7400	0.0031	Stability at the level of 1%
Inequality of incomes	-1.4667	0.0712	Stability at the level of 1%
Robbery	-2.9420	0.0016	Stability at the level of 1%
Addiction	-3.5419	0.0002	Stability at the level of 1%
Divorce	-3.0239	0.0012	Stability at the level of 1%

As the above table shows, all the variables are stable at the level of 1%. On the other words, for all the regressions in all tests, null hypothesis which indicate the existence of same root rejected, so we can results in all the regressions accumulated residual is od zero degree and the possibility of false regression in the final model is excluded.

Panel Data Model estimation: For selecting between the integrated model (without considering the group effects) and the approach of stable effects, we used the F-Limer as the statistics.

Table 2. The result of F-Limer test

Model	Null Hypothesis	F Statistics	Possibility	Result
15-4	Sectional effects are not Significant	2.2397	0.0157	$H_0$ Not being accepted
16-4	Sectional effects are not Significant	3.4712	0.0041	$H_0$ Not being accepted
17-4	Sectional effects are not Significant	1.8345	0.0487	$H_0$ Not being accepted

But as the number of sections, analyzed in this study was only three one, and the number of explanatory variables is more than the number of sections, the estimation of model by the use of random effects is not possible, and hence the only available model is the model by stable effects. The next stage after reviewing the model selection tests and selecting an appropriate one, include estimating the coefficients of the model, by the use of Eviews software.

Lack of organized and rationalized pattern that leads to economic policymaking deviations and consequent increase in divorce, robbery and addiction between 1995- 2013, consists the main hypothesis of this research. in order to analyze the simultaneous effects of independent variables (inflation, poverty,

inequality of incomes and unemployment) on addiction, divorce and robbery, the independent variables inserted in the regression equation of the stable effect kind; the results of the multi variable regression calculation is shown in the tables below. According to the results of the table (3), independent variables could predict more than 61% of Addiction variable changes in the regions under discussion; this means 61 percent of addiction changes during 1995- 2013 can be explained by four variables, include: unemployment, inflation, inequality of incomes and poverty. In concern of effect coefficient of independent variables in the equation, one can note that the unemployment variable with the effect coefficient of 0.402 percent, has the greatest effect on the addiction variable changes. On the other hand, the variables of inequality and poverty, indicate an effect equal 0.204 and 0.129

percent on addiction, respectively. Finally, inflation with effect coefficient of 0.129 percent, in addition to poverty, has the least effect on addiction. Besides that, all the estimated variables in the above mentioned model, with the exception of inequality and poverty at the level of 99% are significant and the effect of inequality and addiction cannot be accepted even at the level of 90%, but at the level of 90% the effect of poverty on addiction can be supported. Through these explanations, regression equation of effects of variables, is as follows:

$$\text{Addiction} = \text{Constant (1.239855)} + \text{Unemployment (0.402286)} + \text{Inflation (0.129988)} \quad (2)$$

Table (3) the results of the model estimation 15-4 (dependent variable= Addiction)

possibility	Statistics T	Standard Deviation	Coefficient	Variable
0.000	8.327	0.148	1.239	Constant
0.0001	4.231	0.030	0.129	Logarithm of Inflation
0.226	1.222	0.166	0.204	Logarithm of Inequality
0.0817	1.774	0.072	0.129	Logarithm of Poverty
0.000	5.305	0.075	0.402	Logarithm of Unemployment
$R^2$	Durbin-Watson	F-Possibility	F-statistics	Statistical features of the model
0.6189	2.0955	0.0000	14.3461	
Developed	Semi-developed	Undeveloped		Cross-sectional width of origin differences
-0.01948	-0.01759	-0.00189		

The independent variables could predict more than 70 percent of the divorce changes in different regions. Besides that all the estimated coefficients in the above model, with the exception of Inequality, are significant at the 99% certainty level. Although, the effect of Inequality on Divorce cannot be accepted at 90 percent certainty level, but at the 95% percent level the effect poverty on divorce is significant. Also, the above results indicate that between all the explanatory variables and dependent variables, there's a positive correlation, as a single percent

increase in inflation, unemployment and poverty cause a 0.14, 0.33 and 0.08 percent increase in divorce rate of different regions, respectively.

$$\text{Divorce} = \text{Constant (1.178)} + \text{Unemployment (0.336)} + \text{Inflation (1.149)} + \text{Poverty (0.081)} \quad (3)$$

Table (4) the results of model 4-16 estimations (Divorce= dependent variables)

Possibility	Statistics T	Standard Deviation	Coefficient	Variable
0.000	10.86613	0.108	1.178	Constants
0.0000	5.944628	0.0252	1.149	Inflation
0.1084	1.632962	0.145	0.237	Inequality
0.0513	1.993729	0.0408	0.081	Poverty
0.0001	4.238705	0.0793	0.336	Unemployment
$R^2$	Durbin-Watson	F-Possibility	F-statistics	Statistical Features of the Model
0.7097	2.0253	0.0000	21.6012	
Developed	Semi- developed	Undeveloped		Cross- sectional width of origin differences
-0.0045	-0.00092	0.005411		

The independent variables could predict more than 70% of the changes of robbery in different regions. Besides that all the estimated variables in the above model, with the exception of inequality, at the certainty level of 99% are significant, also the effect of inequality on divorce is significant at the certainty level of 90%. The above results indicate either that between all the explanatory and dependent variables, there's a positive

correlation, as a single percent increase in the rate of inflation, unemployment and poverty cause a 0.18, 0.16 and 0.31 percent changes in robbery in different regions, respectively. Through the obtained results, the regression model is as follows:

$$\text{Robbery} = \text{Constant (1.477258)} + \text{Unemployment (0.401287)} + \text{Poverty (0.165313)} + \text{Inflation (0.182109)} \quad (4)$$

Table (5) the results of model 4-17 (dependent variable= robbery)

Possibility	Statistics T	Standard Deviation	Coefficient	Variable
0.0000	7.547185	0.195736	1.477258	Constants
0.0000	10.46226	0.017406	0.182109	Inflation
0.0710	1.842424	0.168293	0.310067	Inequality
0.0240	2.323599	0.071145	0.165313	Poverty
0.0000	5.929701	0.067672	0.401287	Unemployment
$R^2$	Durbin-Watson	F-Possibility	F-statistics	Statistical Features of the Model
0.7038	2.1212	0.0000	20.9897	

Developed	Semi- developed	Undeveloped		Cross- sectional width of origin differences
-0.01357	0.007345	0.006223		

## 6. Conclusion

Iran's contemporary history of economy indicates, government always played the role of "prime impetus" in both domain and depth of involvement in economic activities. Three main phase can be mentioned in the domain of economic planning, in Islamic Republic of Iran period. First period refers to Fifth Development Plan, the second one is related to 1989, in this period the Controlled Economy shifts to Free Market kind, and the third phase of economic policymaking refer to the "Targeted Subsidies" (Mosala Nejad, 2011: 22). The statistics indicate that, through the economic indicators and social anomies, Iran passes the state of crisis. Due to this fact, the main goal of this study focused on social consequences of economic policymaking of governments during 1995 to 2013. According to the hypothesis of this study, the growth and spread of social injuries like divorce, addiction and robbery is under the influence of economic disturbances and economic policymaking of government, which different social consequences left behind in provinces. The years during 1995 to 2005 indicate the timeline of presidency of Mohammad Khatami. Structural adjustment policies, economic stability, controlling the inflation and increasing the taxes can be named as the most important economic policies of this period. The years during 2006 to 2014 is considered to be under the influence of economic policies of Ahmadi Nejad. The most important policies of this decade include: expansionary monetary policy, economic development plan, increasing the price of energy carrier, Mehr Housing Project, quick-impact businesses and targeting the subsidies. Generally the results of the research indicate that, the economic policymaking of the Ahmadinejad government in first period in the domains of poverty and unemployment was not in the favor of deprived and less developed classes of the society, but by considering the inflation rates and inequality of incomes, the deprived and less developed provinces, had a better statue than developed countries. By comparing the rate of social injuries in provinces, in first period of Ahmadinejad presidency, deprived provinces had the lowest rate of divorce and robbery; the developed provinces in three indexes of divorce, addiction and robbery had the greatest rate than the other provinces.

In the second period of Ahmadinejad presidency, the economic indexes and social disturbances, not only had an ascending course, but also in comparison to the first period, indicated a manifold increase. Deprived provinces in the fields of poverty, unemployment and inequality of incomes had the greatest rate than other provinces. Less developed provinces had the greatest rate of inflation. Developed provinces in comparison to the other provinces followed a mixed course. Economic policymaking of the Ahmadinejad government at the second period, in the fields of poverty, unemployment, inequality of incomes and inflation was nor in favor of deprived classes of the society and the highest rates can be shown in such provinces; the policies were in the favor of developed provinces in general. Deprived provinces in the second period, in the fields of divorce, addiction and robbery in comparison to the other provinces had a better condition. The less developed provinces' condition is something between the deprived provinces and developed provinces, like the previous period. In this period again, in the field of addiction, divorce and robbery developed provinces had the highest rate. The hypothesis of this study constitute: economic policymaking of the governments has different social consequences and as well as that if economic policymaking not be on the base of rational organized patterns then economic instability and social disturbances emerge as a result. In the period of Mohammad Khatami presidency, a mixture of structural adjustment policies and economic stability caused the rate of social disturbances not reach to the crisis point, and economic policymaking be in favor of deprived classes to some degree and as a result the rate of robbery, addiction and divorce had a favorable condition than the

other provinces. The developed provinces had the highest rate of disturbances, but the economic policymaking changes at the Ahmadinejad period which was along economic instability indicate that the organizational rationality is not taken into account and in all the economic indicators and mentioned disturbances a great rate of growth can be noticed which is disadvantageous for deprived classes. Nevertheless, social consequences in developed provinces indicate a higher rate than the other ones, which is due to the migration of people from deprived provinces to the developed provinces for the reason of unemployment, poverty and financial inability. According to the relational deprivation and failure of dignity theory, it can be noted when this people become acquainted with the life condition of wealthy people in the developed provinces, feel a deep sense of inferiority and discrimination, and on the other hand find themselves in competing with them a failure; their children either have a same feeling toward their wealthy peers in the school. In coping to such a situation a delinquency subculture will be formed which the above findings admit them, as the developed provinces had the highest rate of divorce, addiction and robbery. It seems, unemployment and widespread poverty of deprived regions cause a great number of unemployed people rush toward these developed provinces, and on the other hand, these provinces cannot support the needs of the immigrant. As a result the rate of social injuries is higher in these provinces.

Bu the other hypothesis of this study, which according to it, economic factors of the country are related to social injuries, is supported by the inferential findings. The variables, such as unemployment, inflation, poverty and inequality of incomes, predict more than 61% of addiction changes in different provinces, during 1995 to 2013. Accordingly, unemployment, inequality, poverty and inflation has the greatest effect on addiction rate, respectively. The results of this study indicate that, independent variables predict more than 70 percent of changes in divorce rates in different provinces. Unemployment, inflation and poverty, with 0.23, 0.14 and 0.8 had the greatest effect on divorce. The most and the least effect on robbery, inequality of incomes, inflation and poverty was 0.4, 0.31, 0.18 and 0.16, respectively. It should be noted that, unemployment in comparison to the other economic factors, had a more significant effect on mentioned social injuries. The results of these tests accept our research hypothesis. One question emerge from these findings: why economic indexes have such a significant determinant rate on robbery, addiction and divorce? According to Merton theory, one should note that after the Islamic Revolution, the economic policymaking caused an increase in expectations of the all classes of the society, but on the other hand, the economic structure due to the governments malfunction, could not be response to the requirements of the people. The second reason for this condition can be attributed to the great involvement of government in economy which cannot cause economic dynamism. In addition the government policymaking in Iran, more focus on subjects, such as power, security and expansion of social dominance, and giving priority to the security than social welfare. According to Merton's theory one of the responses which occur in this theory is innovation: that one example of that is robbery. Isolation: such addicts and those who put an end to their marriage life. In addition, according to practical theories and those which put an emphasis on justice, the government's lack of attention on social groups and vulnerable classes, leads to social crisis. In Iran the lack of politician's attention to this mechanisms in the process of policymaking, caused the growth of social disturbances.

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## EVALUATING INFLUENTIAL VULNERABLE CENTERS ON THE RESILIENCE IN THE FACE OF TERRORIST'S ATTACKS WITH HELP OF HIERARCHICAL ANALYSIS MODEL AHP (CASE STUDY: METROPOLIS TEHRAN)

<sup>a</sup>REZA MANOUCHEHRI

<sup>a</sup>MSc student in Urban Design, Tehran, Iran

Email: <sup>a</sup>Ar.Manuchehri@gmail.com

**Abstract:** The recent terrorist attacks in Paris, France (2015), indicates that especially in metropolitan cities are always interested to be attacked by the terrorist groups so essentially terrorism can be considered as urban phenomenon. Metropolis Tehran as the capital of Iran that has the most important elements of infrastructure, governmental, political, industrial, and population centers is considered as potential targets of terrorist attacks. According to the results, 6 and 12 because of being within structure of the downtown, the number of applications and critical infrastructures have been more vulnerable to terrorist attacks compared to other regions.

**Key words:** resilience, urban terrorism, terrorist attacks, Tehran, Analytic Hierarchy Process AHP, vulnerable places

### 1. Introduction

Cities are complex and interdependent devices and very vulnerable against the threats of natural, manmade and terrorist. Characteristics that make cities desirable and achievable, such as architecture, population centers, places of community, infrastructure put the cities exposed to higher risks of terrorist attacks (Behtash et al, 2012). Many terrorist attacks are managed in cities, so that the biggest and the most important terrorist attacks would occur in the cities, in Islamic Republic of Iran, the cities have been repeatedly attacked, so the statistics show that so far about 17,000 people have become victimized by the terrorist attacks in Iran. According to the statistics among countries in the world, 82% of people killed in the terrorist attacks were living in five countries Iraq, Afghanistan, Pakistan, Nigeria, and Syria. Iranians has shared borders with 3 out of the five countries and shared treaty with one of them. The statistics of index of global terrorism has embraced our country among the 13 countries in that terrorism index will go up (Global Terrorism Index, 2014).

The metropolis Tehran also due to the role of capital in the metropolis of the country and possession of critical infrastructure, public places and political institutions, and educational institutions is an important one of potential terrorist targets.

### 2. Methodology

The methodology is analytical-descriptive one and based on analogy and reasoning. First, the scientific literature about the adverse effects of urban terrorism in our city becomes studied and reviewed that in the case, documentary-library method, science and news websites are used. Examining the theories, some strategies on the resilience against terrorist attacks are extracted. Tehran is selected study area. In recognition of the area, some efforts are made the GIS-software maps are used and finally analyzed using AHP analysis and software Expert Choice and areas would be categorized in terms of vulnerability to terrorist attacks.

### 3. Viewpoints and theoretical foundations

#### 3.1 Roots of urban terrorism:

The word terror derived from the Latin (terrere) means fear and scare (Zarghani, A., 2010, p. 72) and the words "terrorist" and "terrorism" in various Academies, including French Academy of Sciences, is meant "system or regime of terror" (Tayeb, 2002, p. 55). Jacobins in France before the Great Revolution in their words and writings had used this term with positive impressions about themselves, but after Robespierre's actions who was

influential member of the group this term was converted as the profanity, suggesting that a delinquency act (Tayeb, 2002, p. 56). Furthermore, its historical root got back to the period before the fall of Robespierre's reign known as "terror" (1793-1794) (Kourmount, 2009, p 0.206). Long wave of terrorism in Western Europe with "propaganda action" anarchists arose in the 1890s. Anarchism advocates believed that the best way of achieving political-social change driven from the revolution would be kill those who occupy positions of power. In the midst of all these movements, Russian People's Will Movement (1878-1881) had a lot of far greater importance; many knew this to be a full-fledged example of a terrorist organization supporter of revolutionary violence in the new era. Like trying to explode up a train carrying Tsar and first explosion in the Winter Palace in November 1879. Until 1905 the wave of attacks and assassinations outside of Russia had subsided, and was seen, in a speech, in Central and West Europe, Russia and the Balkans, and in a different manner in Spain. Labors' disputes in the United States almost from the beginning of would be more violence than in Europe including bombings in Haymarket Square in 1886, and many other bloody incidents. Terrorism in the United States would be limited in terms of scope and in terms of goals, neither to overthrowing the government, nor to killing political leaders or changes in the political system (Tayeb, 2002, p. 60). Urban terrorism was best treated as complementary methods for Peasant War and worst, as a dangerous distraction. Castro and Chegvara shared an abiding faith that the city is a "cemetery" for revolutionary struggle for freedom. It was only in the mid-1960s that the urban terrorism became primarily formed independently as a result of the failure of peasant guerrillas in Latin America as well as in the wake of the emergence of urban terrorist groups in Europe, North America and Japan. In the twentieth century, the terrorism by totalitarian regimes such as Nazi Germany under Hitler's control and the regime of the Soviet Union under Stalin's control, in fact, were regarded as policy but not policy-declared. Moreover, in our time, some governments attempted at assassination of the citizens of other countries. This phenomenon causes the generations and popularity of terms like urban terrorism, political terrorism and international terrorism (Tayeb, 2002, p. 63).

#### 3.2 Types of terrorist attacks

The terror and terrorism is as old as history of politics and government formation in the world, but at last decade and from the twentieth century, with the development of technology and communication tools, advanced weapons proliferation, complex organization, and the formation of ethnic, national, and ideological motivations, every day is added to the power and role of political groups and terrorist organizations (Pape, 2003, P. 343). The terrorist threats include all types of threats creating a sense of insecurity among the people and authorities. The terrorist or security threats may be presented objectively or subjectively (Schulz et al., 2002, p. 93). Bomb, thrown explosives and use of any type of fire and cold arms, assassination, kidnapping, or hostage-taking, collective intimidation and fear and forcing people to leave work, home or school, as it is the instances of terrorist threats (Zarghani Vazemy, 16: 931). The terrorism has been classified and divided on the basis of the different views and approaches. Part of this type of classifications includes: the terrorism under the control of countries and independent terrorism, anarchy-loving terrorism, neo-fascist terrorism and ethnic separatist terrorism (Hamzezhadeh, 2002, p. 5), the conventional and non-conventional terrorism, chemical and nuclear terrorism, (Dehghan, 2002: 933). As well, in addition to the above classification, the terrorism experts believed there are seven types of terrorism including nationalist terrorism, political terrorism, narco-terrorism) of addiction-terrorism (religion

terrorism, government-sponsored terrorism, state terrorism and independent terrorism and there are several dimensions including: nuclear terrorism, bio-terrorism, agriculture terrorism,

chemical terrorism and criminal terrorism, suicide terrorism. The following figures show the extent and types of terrorism:

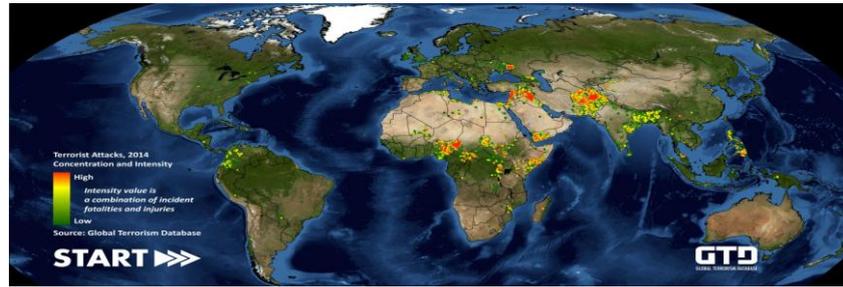


Figure1: Density of attacks occurred in year 2014 (<http://www.start.umd.edu/gtd>: Global Terrorism Database)

Table 1: Types and dimensions of terrorism (source: Zarghani Azam, 2010, p. 73)

Types of terrorism	Dimensions and methods of terrorism
1. Nationalist terrorism	1. Bio-terrorism
2. Political terrorism	2. Chemical terrorism
3. Addiction terrorism	3. Nuclear terrorism
4. Religion terrorism	4. Agriculture terrorism
5. Government-sponsored terrorism	5. Criminal terrorism
6. State terrorism	6. Suicide terrorism
7. Independent terrorism	

In the words of James pain, to start terrorist discourse, it must first perform a type of cleanup, which is what others consider as definition. In Douridian's opinion, it is so difficult to perform the rituals according to semantic confusion and mixture dialog consisting of terrorism and anti-terrorism (Solomon, 2011, p. 18). However, the terrorism in the dialogue at any time would be meant within the stereotyped and specific frames and its manifestations and contents would be drawn and depicted, as dominant discourse recognizes the. However, modern terrorism differs from past versions that the victims are often innocent civilians who were either randomly chosen or merely attended at the terrorist situations. In other words, in our times, unknown victim's pan is heavier than the assassination of prominent and famous persons (Tayeb, 2002, p. 64)

### 3.3 Urban Resilience

Resilience is the new way of thinking about urban design so that engages less vulnerability and more flexibility (Kates, 2007, P. 22). The resilient city is of a stable network of physical systems and human communities. The physical systems include components of natural and built environment of the city. Totally, the physical systems would be considered as a body, bones, arteries and muscles of the city. During a crisis, they must be able to withstand versus great pressure and have a good performance. If the system has many defects that cannot be repaired, the return process will be done slowly after the crisis (Rezaee, Mohammad Reza, p. 27).

The resilient cities make manifest situations of the survival, governance, sustainability, adaptability and flexibility (Arif, 2015, p 1059). Total human communities act as the brains of the city, guide its activities, and respond to the needs of the city. During a crisis, the social network also must be able to withstand extreme conditions and act correctly (Rezaei, Mohammad Reza, p. 28). The resilience is rooted in the ecology; the environmental considerations would be the design of the city. The use of metaphors such as resiliency or the organism have stressed on the nature of the city as a living (Kostof, 1991, p.15). How the urban designer to be inspired by ecology depends on two key components that are common in cities and organisms: 1) post-disaster recovery (Vale and Campanella, 2005) 2) coping with the change and managing

them. The first option comes two options to mind or returning to the previous situation or pursuing a preferred status. The first option represents the equilibrium model with making capacity and achieving a normal cell. The risk of natural catastrophes (floods, earthquakes, etc.) or man-made (wars, terrorist attacks, etc.), the need to reduce vulnerability has been caused by increasing safety and adaptability in the city. Related attempts and actions to post-disaster reconstruction and recovery efforts would seek adjust the risk and mitigate vulnerability, by making capacity. In non-interactive version, this is aimed at promoting greater flexibility to reduce the vulnerability. In this model, there are more comprehensive practices for urban design, which are presented by focusing on three aspects of the built environment, including form, function and flow.

A) Forms: define the buildings. As organisms adapted their resilient to the habitat, specific building species increase urban form for the changes. Modules are representation of mirrors of a certain standardized parts of larger uniform part (Lynch, 1990, P.384). The flexibility of entrances and grid patterns are created within the fixed and standardized parts which consist of structures which are repeatable.

B) Function: reflects the purpose or intent of urban form (and organisms). Both cities are in need of quite specific and non-specific units, but are separated from each other until the adaptability for one does not disturb growth and performances (Lynch, 1990, P.382).

C) Flow: currents that form separate but interconnected networks of relationships which are critical and effective on long-term viability. Infrastructure would manage flows related to services (traffic, gas, water and wastewater).

These three aspects of the built environment would cause conceptual sequence of urban form, ranged from the urban of fixed or rigid (infrastructure) and semi-fixed urban form (public space) to urban form of flexible, adaptable or fluid (open and flexible spaces) (Banerjee, 2011, 1061)

### 3.4 Hierarch analysis AHP

AHP is one of the most multi-criteria decision-making techniques invented by Thomas L. Saaty in the 1970s (Kusek, 2004). This method when decision-taking action involves in few options and decision criteria. The indicators can be quantitative or qualitative. The method's basis relies on paired comparisons. In stage of preparation of the hierarchy, the problem is defined and the purpose of hierarchical decision-making would be the elements and factors making the decision to draw. Analytic hierarchy process needs to break the decision-taking problem by several indicators into a hierarchy of levels. For this purpose, a decision tree is used which is made up of four levels: The first level includes the overall objective of the decision making. On

the second level are the general criteria on the basis of that the decision is taken. On the third level are the last level of the decision options here are 22 districts of Tehran metropolis.

### 4. Ecology research

Tehran Province is located with an area of 13692.413 km between 34 and 36.5 degrees north and 50 to 53 degrees east longitude. Tehran Province among the metropolis of the country has a privileged position due to the centers of political, economic and social to exist. Some of these centers are unique, less visible in the remained metropolis in the country and this is a good target for terrorist groups to be exposed.

Table 1: Management and Planning Organization, Iran's statistics center 2011-2012

Name	Population	Annual average growth of population	Portion of country's population	Household dimension	Amount of urbanization	Literacy in percent	Area (km <sup>2</sup> )	The number of towns	Number of district	Number of cities	Number of rural areas	Number of villages
Tehran	12183391	1.44	16.2	3.3	92.8	90.5	13692.413	16	33	44	71	757

### 4.1 Terrorist events in Iran and the world

Globally, the country without the violence would be almost nonexistent. But there are some countries that have been associated with the violent events. For example, Columbia would be including in those countries. In this country, the average daily violent incidents killed 71 people and 4 "terrorist attack" took place (Ozzie, 2011, p 281)

Some of the terrorist attacks that occurred in the world, including the following:

In Wall Street in New York City in America, on September 16, 1920 TNT bomb that was locked in the carriage of horses, 35 people were killed and hundreds were injured. Although the Bolsheviks and anarchists were suspected but main officials are not known certainly. On January 24, 1975 in New York City, the historic restaurant Francis was exploded. Based on the explosion, four people were killed and 50 people were injured.

In 1983, two major attacks took place in Beirut. The first occurred on April 18 and throw bombs to the embassies of America included 63 people are dead and 17 injured. The second occurred on October 23. In the port of Beirut near the Americans' accommodation, bomb exploded would kill 241 sailors. Minutes later a second bomb was exploded in West Beirut and the accommodation of French troops and 58 people were killed (Ozzie, 2011, p 282). In America in Oklahoma City, on April 19, 1995, a car bomb was exploded outside a federal office building and it led to 19 child victims, along with 168 others. In August 7, 1998, in Kenya and Tanzania, exploding car bomb next to the building of embassies of America, 224 people have been killed and 4,500 injured. The biggest terrorist attack

in history took place September 11, 2001. This day was marked by an unprecedented terrorist attack on America. Following the collision of two airplanes on the World Trade Center in America, there has been great destruction. After the incident, the Pentagon reported a large explosion in 18/47 pm. After the attacks, in 18.57 pm another huge explosion occurred in a commercial center in Washington. As a result, the 3038 terrorist attacks have lost their lives (Ozzie, 2011, p. 284).

On November 13, a series of coordinated terrorist attacks occurred in Paris, France. Paris AFP reported the number of victims of terrorist attacks at least 120 people and 200 injured. Some news sources declared the number of people killed over 150 people. In Paris attacks, six-shooter and two suicide blasts occurred in Paris seven points. This is the first time in French history that suicide attacks carried out on its territory. The first explosion occurred near a soccer stadium in Paris, during a friendly match between Germany and France and when 'Francois Hollande' French president was inside the stadium. He quickly left the place and went to the Interior Ministry to convene an emergency meeting. The second explosion occurred about 15 minutes later in other parts of the city's six-shooter. At the same time in other parts of the city, six shooting cases occurred and then gunmen got at the entrance to the concert hall more than a thousand 500 people hostage. Hostage-taking ended with police's intervention, during which nearly 100 people were killed and several attackers (Islamic Republic News Agency, December 6, 2015). According to statistics from the 1980-2001, 4155 terrorist incidents happened around worldwide in which 3207 people were killed. Recent statistics showed an increase in the number of victims of terrorist attacks, so that in 2012, 11133 people were killed and in 2013, 17,958 people died occurred among 102 countries (Global Terrorism Index, 2014, P. 5)

Table 2: MKO military operations in Tehran (1971-1978) (Source: Ismaili, 2011, p. 103)

Row	Date	Attack place	Description
1	5/21/1972	Symbols and visions of governed policy power	Bombings in America Information Administration, Building and Construction Forum Anglo-Iranian Council in Tehran
2	5/30/1972	Crowded and public places	Explosion at the way for General Price, the American advisers in Tehran
3	5/30/1972	Symbols and visions of governed policy power	Exploding a bomb in the tomb of Reza Khan, coincided with Nixon's trip to Tehran
4	8/2/1972	Symbols and visions of governed policy power, Crowded and public places	When King Hussein of Jordan to Iran, to the explosion of a bomb at the Jordanian Embassy
5	1/26/1973	Crowded and public places	Exploding a bomb in the cafeteria International Hotel in Tehran
6	4/19/1974	Crowded and public places	The explosion at the headquarters guard Aryamehr University of Technology (SUT)
7	6/25/1974	Critical infrastructure of the city	Explosion-proof electrical installations IRNA factory in Karaj

8	6/25/1974	Critical infrastructure of the city	Power plant explosion Jeep Land Rover factory in Karaj
9	7/21/1975	Crowded and public places	Bomb blast in Forums
10	7/26/1981	Symbols and visions of governed policy power/ Crowded and public spaces	Abuzar Mosque bombing during the speech, Ayatollah Khamenei in Tehran
11	7/27/1981	Symbols and visions of governed policy power/ Crowded and public places	The explosion of the Islamic Republic of Iran, Ayatollah Beheshti testimony
12	8/29/1981	Symbols and visions of governed policy power/ Crowded and public places	Explosion presidential office and the testimony of Mohammad Ali Rajai

#### 4.2 Vulnerable areas against urban terrorism:

Cities especially in metropolitan cities due to demographic, political and economic niches are addressed by the terrorism. However, these people do not choose at random places of interest; according to the studies conducted by the author, the places where 1- there is concentration of population and economic, 2- making a terror a lot 3- have high political and ethnic dimensions, 4- have physical and human casualties, 5- have the symbolic value, 6- have priority than other locations for broadcasting a lot. Based on the terrorist attacks, most places are interested by these groups based on theoretical principles described in the section on resilience can be divided into the following categories:

1) Fix the city: a) critical infrastructure, b) symbols and perspectives of political power (seat of government and state) (Banerjee, 2011, 1062)

2) Semi-fixed city: a) public and crowded places in the city (Banerjee, 2011, 1063)

#### 4.3 City Fixed

##### 4.3.1 Critical infrastructures of the city

Infrastructure systems are known targets of terrorism. Even unsuccessful attacks on critical infrastructure can be extensive broadcasted and cause significant economic losses. For example, security of airlines, marine, railways, roads and transit systems should be guarded against the terrorism. The infrastructure of energy, gas, water, electricity, sewage and communications would be the basic requirements of any progress. The life lines should be protected against the attacks by taking the supports or bringing them out of state monopoly on one area and increasing their number (Edward, 2001, P.10)

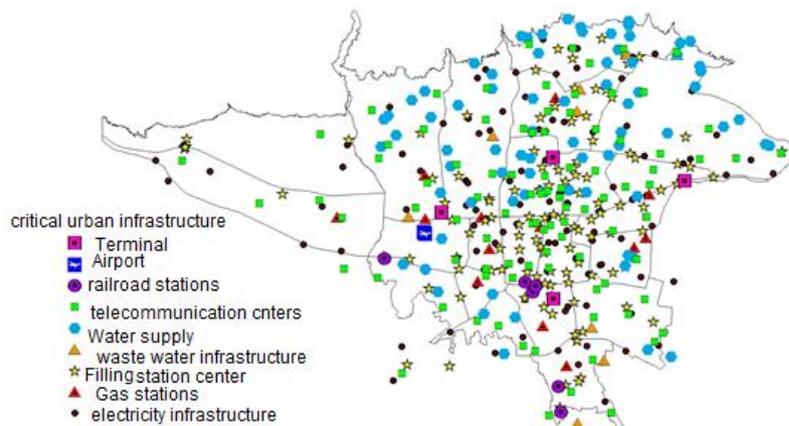


Figure 2: Critical Infrastructure of Tehran

##### 4.3.2 Symbols and prospects of politically governed power (seat of government and state)

Today, the terrorists to challenge the governments, as well as receive the media and the world of existence, have attacked political and even non-political symbols and perspectives of ruling power. The prospect and size usually include Parliament House, the Congress, Ministries, Governors, Office of the Prime

Minister or President, judicial complexes, national radio and television, government buildings and centers and even public statues and sculptures. The following symbols and prospects would practice for the government as a political tool to remind people who is seated in power or what ideology or philosophy governs the society (Jones et al., 121: 2, 48) The symbolic nature of terrorist acts would be considered as an important geographical aspects (Flint, 2 30).

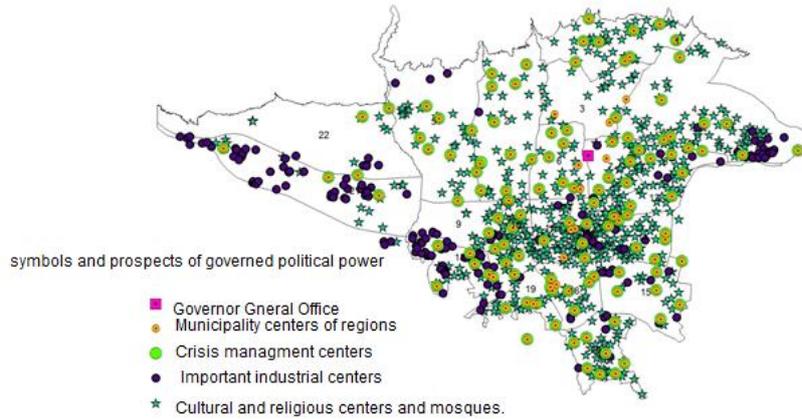


Figure 3: Symbols and prospects of politically governed power (seat of government and administration)

4.4 Semi-fixed Cities

4.4.1 Crowded and public places in the city

The crowded places are a tempting target for the terrorists because ease of access, lack of security protection, high impact and political confrontations are what makes an attack successful

on the existing spaces. On this basis, most of the attention of the terrorism has paid to the spaces of the building environments. These spaces include terminals, major sporting spaces, clubs, shopping malls, cinemas and theaters and health services, also public spaces such as parks and squares, too. (RIBA, 2010, P.6)

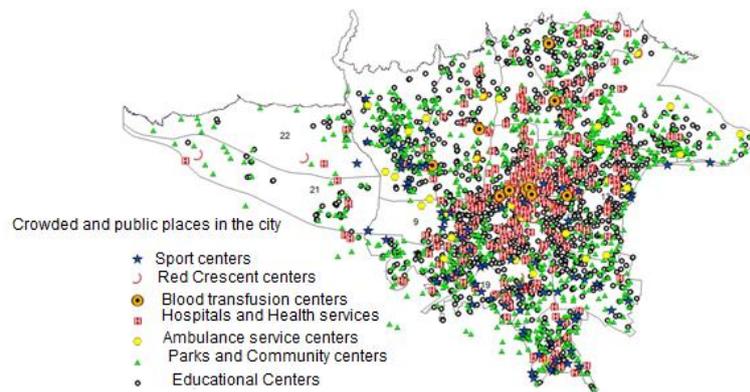


Figure 4: Crowded and public spaces of Tehran (Source: author)

5. Analysis and Results

The cities, as most complex man-made, have encountered with extensive risks due to both the wide range of risks and multi-vulnerabilities. The urban vulnerabilities everywhere, from buildings and infrastructure, to telecommunication, transport and energy lines would be palpable. Tehran Metropolis given valuable structures of economic, political and social has been

considered as a potential target to attack, because Tehran can be attacked due to any of the urban elements by the terrorism to achieve its goals, such as creating panic, damaging the vital elements of the city, putting on the international news' headlines. To rank the areas of Tehran, after identification of centers in the areas of high vulnerability against the terrorist attacks above, first, AHP hierarchy tree that is made up of objective, criteria and alternatives would be drawn.

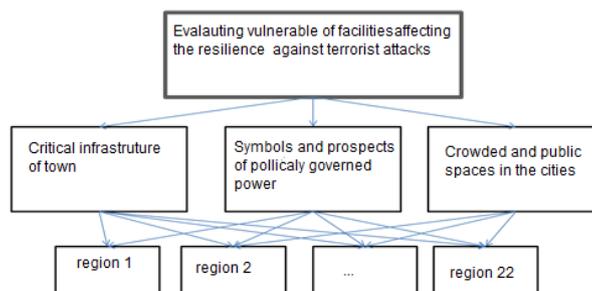


Figure 5: Model Tree AHP

And according to the following graph obtained by software expert choice, the corresponding weights on target options, i.e.

all 22 district of Tehran.



Figure 6: Prioritizing the amount of vulnerability of metropolitan areas against terrorist attacks (Etaat et al, 2014)

Finally, after the classification of regions, Region 6, 12 due to having a central-urban structure and high accumulation areas, especially in the day, traffic and high population density in these

areas and the great health for services applications in times of crisis and important educational centers such as Tehran University, were among the most vulnerable areas.

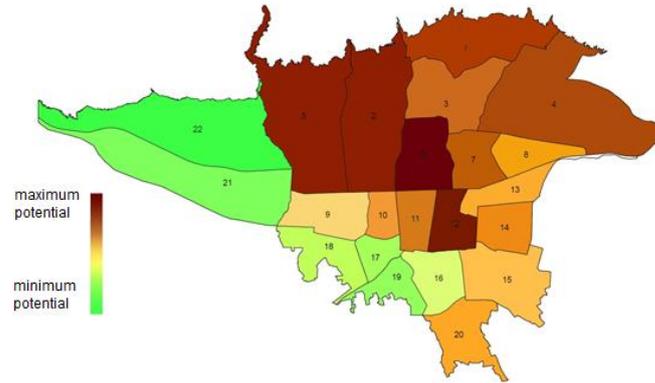


Figure 7: 22 districts of Tehran categorized based on the amount of vulnerability against terrorist attacks (Source: author)

According to the analysis as shown in the map above how far we are from central and northern Tehran and get closer to the West, the potential of attacks will be less; district 22, according to a detailed analysis, is that are least likely to terrorist attacks.

**6. Conclusion**

Reviewing attacks in Iran and over the world, the vulnerability parameters were selected by the theoretical foundations of urban resilience (in fixed and semi-fixed cities) and identifying the vulnerable in the Tehran metropolitan centers and analysis by AHP that 22 districts of Tehran including 6, 12, 5, 2, 1, 4, 7, 3, 11, 14, 20, 8, 13, 10, 15, 9, 16, 18, 19, 17, 21, 22 are located in the threat of terrorist attacks, respectively.

Table 3: 22-districts vulnerability in Tehran Metropolis against terrorist attacks

Region	Infrastructure	Public spaces	Symbol	Rank
1	High	High	Average	5
2	High	High	Average	4
3	High	High	Low	8
4	High	High	High	6
5	High	High	Average	3
6	High	High	High	1
7	Low	High	Average	7
8	Low	Average	Low	12
9	Low	Low	Low	16
10	Low	Average	Average	14
11	Average	Average	Average	9
12	High	High	High	2
13	Average	Average	Average	13
14	Average	Average	Average	10
15	Average	Average	Average	15
16	Average	Average	Low	17
17	Low	Average	Low	20
18	Low	Average	Average	18
19	Low	Average	Low	19
20	Average	High	Low	11
21	Low	Low	Low	21
22	Low	Low	Low	22

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## SPIRITUAL INTELLIGENCE OF MANAGER AND ITS IMPACT ON THE PERFORMANCE OF GOVERNMENT ORGANIZATION IN EQHLID CITY

<sup>a</sup>AMIR HOSSEIN AMIRKHANI, <sup>b</sup>MARYAM ZARIN KOLAH,  
<sup>c</sup>SAEIDEH MOSTAFAEI, <sup>d</sup>MOSLEM ASHTARI

<sup>a</sup> Associate Professor, Payame Nour University (PNU), Tehran, Iran

<sup>b</sup> MA Student of the Executive Management, Payame Nour University (PNU) Varamin Branch, Iran

<sup>c</sup> MA Student of Governmental Management, Payame Nour University (PNU) West Tehran Branch, Iran

<sup>d</sup> MA Student of Governmental Management, Payame Nour University (PNU) West Tehran Branch, Iran

Email: <sup>a</sup>amir.h.amikabiri2@gmail.com,

<sup>b</sup>zarinkolahmaryam@yahoo.com,

<sup>c</sup>saefeh.mostafaei23@gmail.com, <sup>d</sup>Moslm.ashtari12@gmail.com

**Abstract:** Spirituality can be seen as a form of intelligence. Spiritual intelligence integrates exterior aspects of intelligence with the interior aspects of spirituality. The data is collected through a questionnaire and were analyzed using SPSS software. The results showed that spiritual intelligence role and influence on employee performance management, and the meaning and purpose of work is most effective and intelligence components and self-awareness and saving blessing and excellence are the next and finally the actions of the least impact on performance. The evidence also shows that spiritual practice, increasing awareness and insight into multiple new levels of consciousness and the performance of the positive influence to achieve a good performance, its agenda of work and career and their life.

**Keywords:** spiritual intelligence, blessing, excellence, employee performance, government organization

### 1. Introduction

The importance of personality has been nowadays acknowledged managing an organization is one of the major world challenges of current and future organization and this is because the direction of the organization through the thinking and practice managers is possible. One of the core competencies that lead to organizational success, managers need to nurture their intelligence is intelligence managers at all levels to their duty to fulfill a balanced and comprehensive. Including intelligence that enables managers to make strategic decisions in a complex environment and current business world's major spiritual intelligence adopt administrators. This type of intelligence is emerging phenomenon that many experts as well as management and organization managers at various levels has attracted. Many of them have known spiritual intelligence as a sustainable resource for organizations which can at times turbulent and troubled them, help and inconsistencies and irregularities in the organization in order to resolve and the recognition of the value of employees in the organization and create a basis of trust between employees. The concept of spiritual intelligence of managers in terms of the formation of radical change and its impact on the working environment, considerable scientific benefits so organizations and their managers provide opportunities to develop spiritual intelligence, organizations are more successful than others (Naderi and Rajaei Poor, 2010, p. 122). Spiritual intelligence exteriorly combine intelligence with spiritual aspects within the person's extraordinary capacity, in such a way that it can be used spirituality as practical. Yang (2007) states that spiritual intelligence is man's capacity for searching and asking questions about the ultimate meaning of life and simultaneously experience seamless link between each of us and the world in which we live (Zarei Matin et al., 2011). Since the corporate world today, a world full of competition and challenges, this turbulent environment has prompted managers to improve the performance of your employees as your competitive strategy in today's world choose. Therefore underlie any movement towards growth and development and improve the performance of employees in organizations, recognizing the status quo, identify strengths and weaknesses and then design programs to improve performance is measured.

Thought spiritual intelligence of managers influence the employee's performance reveals a new aspect of the organization's activities never to human eye does not look tool and they always treated with respect and kindness and because it's moral, social and academic staff will lead to success and honor. According to George (2006), the spiritual intelligence applications in the workplace include: 1) Providing peace of mind, in a way that affects the person's effectiveness, 2) create understanding between people 3) management changes and the removal of barriers. 4) Providing peace of mind and how it affects the individual effectiveness. Since the type of attitude reflects the success of staff or lack of success of managers in the organization. Therefore, management is of the utmost importance and necessity and appointments to fit and are based on certain standards and requirements to upgrade and career advancement, increase staff efficiency lead and successful operation requires that managers could well intended to evaluate the performance of the staff that creates employee motivation and contributes to the growth performance is positive. Managers have spiritual intelligence of solace and inner satisfaction in employees. Increase creativity, optimism, confidence and according to human values in the workplace reveals and to positively affect employee performed therefore, we can say positive nurturing spiritual intelligence and effective management of employee performance is considered stable source of development and it is the basic requirement of the third millennium since late last century, in the nineties of the twentieth century this kind of integration between the inner and outer life is taking shape. One of the important areas where integration is discussed, the business environment is organized. Many of the things previously were classified within the private sphere, now being imposed on the public domain. Login concepts like morality, truth, belief in blessing, honesty, conscience and trust and forgiveness, work, the emergence of altruism and ... all indicate that the new paradigm. According to the researchers, this new paradigm at work, it derived from quantum physics, science, cybernetics, chaos theory, cognitive science and, in fact, a reaction to modern mechanistic paradigm, the paradigm of spirituality. In this regard, government organization workplaces are in the public domain and improve their performance an important role in improving the delivery of services to citizens. In general, given the importance and necessity of the above-mentioned concepts of spiritual intelligence and employee performance by paying attention to these two concepts, this research effort with the aim of introducing spiritual intelligence as a factor influencing the performance of government organizations and to evaluate the effect of spiritual intelligence on the performance of employees in government organization in Eqldid city to provide recommendations to improve the performance of employees affected by spiritual intelligence of managers in government organization, especially in the city's Eqldid generalize the results to managers and employees of all government organization, in planning and adopting appropriate policies, useful and build on it in the future to excellence and growth and the more government organization and non-governmental and prosperity lead, it was therefore attempted to address these questions to be answered that what is the impact of spiritual intelligence in the workplace governmental organizations on staff performance in the city Eqldid?

### 2. Theoretical framework

Reviewing the existing theory about spiritual intelligence, spiritual intelligence managers were evaluated by employee performance. For this purpose, theoretical framework spiritual intelligence Amraam and Dryer (2008) includes five dimensions of consciousness and self-awareness, blessing, excellence significant resources, the truth and the theoretical framework of employee performance Hersey and Goldsmith (2005) as the seven-factor model 1 «ACHIEVE» includes knowledge and skills, perception and image of the role, organizational support,

motivation or desire, performance feedback, employee practices, environmental suitability was used so that the main questions are:

What is impact of spiritual intelligence in environment organizations on staff performance Eqlid city? So to improve employee performance to evaluate the effect of spiritual intelligence on the performance of employees were managers and in this context, exploratory studies conducted background research on the relationship between spiritual intelligence and employee performance in general and especially in government organization, research by saying some of them are mentioned.

Mitroff et al., (1999) experimentally and with the help of questionnaires and interviews with human resource managers, spirituality in the workplace from the perspective of human resources have run. The results showed that the respondents, had very different views about the definition of spirituality, they did not wish to make your life (family life, personal, business, family), and the separation between religion and spirituality were distinguished, and had a great desire to experience spiritual achievements in the workplace, and often the use of words spirituality and religion in the workplace were afraid and like other Western cultures, spirituality and personal phenomenon considered individually. The researchers concluded that workplace spirituality is manageable and this is the most important and most basic duties. They believed in the West, the separation between science, religion, art and ... too much has been done and now organizations not survive without spirituality. They emphasize that organizational spirituality management methods must be measured without separating them from other elements of management.

### 3. Research Methodology

In this study population consisted of managers and employees of government organization in city Eqlid according to officials with the cooperation of 22 managers and 130 employees were selected as the sample. Instruments were Amraam and Dryer (2008) questionnaire was used to measure spiritual intelligence and its validity has been confirmed. In this study, the validity for formal or symbolic placement of dozens of professors and experts were assessed and the necessary corrections were applied to evaluate the reliability of the questionnaire, 15 questionnaires were distributed among managers and using statistical analysis software (SPSS) Cronbach's alpha coefficient and 0.83 were thus high reliability and internal consistency coefficient of the questionnaire, and acceptable and appropriate. The questionnaire consists of 44 items that are 6 options (Likert) and items 1 to 44 are set. The questionnaire employee performance (self-made) according to the research background and extracting indicators based on the theory of Hersey and Goldsmith (2005) is set and the validity of this «ACHIEVE» Seven-factor for formal or symbolic sharing dozen professors and experts were assessed and the necessary corrections were applied to evaluate the reliability of the questionnaire, 30 questionnaires were

distributed among employees and using statistical analysis software (SPSS) was 0.83 Cronbach's alpha coefficient and thus high reliability and internal consistency coefficient of the questionnaire, it was good and acceptable and questionnaires with 20 questions that are 5 options (Likert) and questions 1 to 20 was set.

### 4. Hypotheses

The main hypothesis: spiritual intelligence of managers has effect on employs performance of government organizations in Eqlid city.

First sub-hypothesis: Consciousness and self-awareness of managers has effect on employs performance of government organizations in Eqlid city.

Second sub-hypothesis: the blessing of managers has effect on employs performance of government organizations in Eqlid city.

Third sub-hypothesis: a sense of meaning and purpose in work of managers has effect on employs performance of government organizations in Eqlid city.

Fourth sub-hypothesis: Excellent seeking of managers has effect on employs performance of government organizations in Eqlid city.

Fifth sub-hypothesis: the fact of actions of managers has effect on employs performance of government organizations in Eqlid city.

### 5. Results

According to our evaluation, findings from the questionnaires showed that:

The main hypothesis: spiritual intelligence of managers has effect on employs performance of government organizations in Eqlid city (Table 1).

Spiritual Intelligence and the assumption by 44 indexes of 20 indicators relating to the performance of public employees in Eqlid city are measured. Since the test significant level equal to 0.01 less than (0.05). So the above test is significant at a confidence level 0.95 and the regression model of spiritual intelligence (intelligence and consciousness, blessing, sense of meaning and purpose at work, and the truth-seeking actions of Excellence) as independent variables and the dependent variable employee performance as government organization in Eqlid city as follows:

$$Y=62.49+0.62X1+0.26X2+1.48X3 +0.19 X4 +0.55X5 \quad (1)$$

Table 1 Parameter values of main hypothesis related to employee performance variable

Variable	$\beta$ regression coefficient	T-statistic	The significance level	Test result
Fact of actions of managers X5	0.55	1.03	0.03	reject HO
Excellent seeking of managers X4	0.19	0.32	0.004	reject HO
Sense of meaning and purpose in the work of managers X3	1.48	1.06	0.02	reject HO
Blessing of managers X2	0.26	0.44	0.005	reject HO
Consciousness and self-awareness of managers X1	0.62	0.64	0.02	reject HO
Intercept	62.49	54.20	0.02	reject HO

After an unit increase in the variable consciousness and self-consciousness managers with all other variables constant increase in variable employee performance by as much as 0.62 as well as an increase in the variable unit managers endowed with all other variables constant increase in variable employee performance by as much as 0.26 and a sense of meaning and purpose in work management unit increase in variable with all other variables constant increase in variable employee performance by as much as 1.48 and energy increment in variable excellence among management with other variables constant and increase in variable employee performance by 0.19 and the actions of one unit increase in variable with all other variables constant increase in variable performance of employees is 0.55 in government organization in the city Eqld.

First sub-hypothesis: Consciousness and self-awareness of managers has effect on employs performance of government organizations in Eqld city.

This hypothesis is related to consciousness and self-awareness by 6 indexes spiritual intelligence of managers and 20 indicators relate to the performance of public employees in Eqld city is measured. Since the test significant level equal to 0.02 less than (0.05) is above test is significant at 95% and the regression model between the consciousness and self-awareness directors as independent variables and the dependent variable employee performance as government organization in Eqld city is as follows:

$$Y=51.62+55.0 X1 \quad (2)$$

After a unit increase in variable consciousness and self-management employee performance is 0.55 by governmental organizations in Eqld city.

Second sub-hypothesis: the blessing of managers has effect on employs performance of government organizations in Eqld city.

The assumption by 11 indicators related to the gift of spiritual intelligence of managers and 20 indicators relating to the performance of public employees in Eqld city is measured.

Since the test significant level equal to 0.03 less than (0.05) is above test is significant at a confidence level 0.95 and the regression model between the gift of directors as independent variables and the dependent variable employee performance as government organization in Eqld city is as follows:

$$Y=52.62+05.0 X2 \quad (3)$$

After an increase unit in the variable endowment managers rate increase employee performance is 0.05 in government organization in Eqld city.

The third sub-hypothesis: a sense of meaning and purpose in work-governmental organizations, city managers Eqld affect the employee's performance.

This hypothesis by 3 indicators related to the sense of meaning and purpose in the work of spiritual intelligence of managers and 20 indicators relating to the performance of public employees in Eqld city is measured. Since the significant level is equal to 0.01 less than (0.05) is above significant at 95% and the regression model between the sense of meaning and purpose in the work of directors as an independent variable and staff performance as the dependent variable in government organization in Eqld city as follows:

$$Y=45.62+31.0 X3 \quad (4)$$

A unit increases in variable a sense of meaning and purpose increases in variable employee performance management 0.31 in government organization of Eqld city.

Fourth sub-hypothesis: Excellent seeking of managers has effect on employs performance of government organizations in Eqld city.

This hypothesis by 3 indexes after excellent seeking in spiritual intelligence of managers and 20 indicators relating to the performance of public employees in Eqld city is measured. Since the test significant level equal to 0.02 less than (0.05) is significant at 95% and the regression model between the efficient management and excellent seeking as the independent variable and staff performance as the dependent variable in government organization in Eqld city is as follows:

$$Y=49.62+07.0 X4 \quad (5)$$

After a unit increase in the variable employee performance management excellence seeking is 0.07 in government organization in the city Eqld.

Fifth sub-hypothesis: the fact of actions of managers has effect on employs performance of government organizations in Eqld city.

The hypothesis by 13 indicators related to the exercise of spiritual intelligence of managers and 20 indicators relating to the performance of public employees in Eqld city is measured. Since the test significant level equal to 0.04 less than (0.05) is above test is significant at 95% and the regression model between the actions of truth as an independent variable and staff performance as the dependent variable in government organization Eqld city is as follows:

$$Y=48.62+02.0 X5 \quad (6)$$

After the actions of one unit increase in variable increases in variable employee performance by as much as 0.02 at government organization Eqld the city (Table 2).

Table 2. First sub-hypothesis parameter values related to employee performance variable

Regression coefficient $\beta$	Standardized coefficients	T-statistic	Variable	The significance level	Test result	Hypothesis
0.55	0.11	1.34	Consciousness and self-awareness of managers X1	0.02	confirmed	<b>First</b>
62.51	-	54.56	Intercept			
0.05	0.117	1.33	Blessing of managers X2	0.03	confirmed	<b>Second</b>
62.52	-	54.62	Intercept			
0.31	0.13	1.51	Sense of meaning	0.01	confirmed	<b>Third</b>

			and purpose in the work of managers X3			
62.45	-	54.77	Intercept			
0.07	0.12	1.39	Excellent seeking of managers X4	0.02	confirmed	<b>Fourth</b>
62.49	-	54.58	Intercept			
0.02	0.12	1.41	Fact of actions of managers X5	0.04	confirmed	<b>Fifth</b>
62.48	-	54.56	Intercept			

## 5. Discussion

Today one of the topics of interest for animal behavior and psychology is spiritual intelligence. The concept of spiritual intelligence involves an adaptation and behavior problem solving and the highest growth levels in different domains of cognitive, moral, emotional, interpersonal and includes a person in order to coordinate internal and external phenomena around and achieve integration can help. It's intelligent insight about life and all its experiences and events and enables him to framing and reinterpret their own experiences, to deepen their knowledge as to what the basic principles of religion (eg to achieve unity in the multiplicity of forms beyond, find answers about the origin of the universe and detect patterns of behavior based on spiritual and setting them) are the main axes of spiritual intelligence. Discussion of individual spiritual intelligence not only in the field but also in psychological, social sciences into other areas, include management. It can be said that perhaps because of increasing research in the field of spirituality, it see the dramatic impact it has on improving individual and organizational performance. Evidence also suggests that awareness-raising spiritual practice and insight into multiple new levels of consciousness (meditation) and have a positive impact on performance. The main hypothesis of this study show the results of various aspects of spiritual intelligence on the exercise of employee managers finally, the work efficiency has considerable influence according to the main hypothesis of the research data that the Managers having spiritual intelligence on employee performance and government organization should explore the potential of new piety and spiritual growth through excellence as an underlying cause of mental and physical capacity and to the integrity of the internal relationship managers, employees and organization are compliance with rules and organizational performance excellence of understanding interpersonal relationships (between managers and employees) more and more taken into consideration. The results of the first sub hypothesis of this study suggest that increased employee performance to increase the awareness of managers and this result is consistent with previous studies on the other hand, intelligence and self-awareness component not only of spiritual intelligence is interwoven with personality but according to the study on the efficiency and outcomes of staff (staff performance). According to the first sub hypothesis of the research data that employees understand the business results (the employees) should be emphasizing spiritual awareness and deep knowledge of the collection using modern methods of management talent and lofty goal setting to be developed. The results of the second sub hypothesis of this study shows the managers of the blessing of blessing will benefit more positive and significant effect on the performance of employees within the organization and this result is consistent with previous studies so, as a result of the effect of blessing of spiritual intelligence on employee performance, especially after strong point for government organization. According to the second sub-hypothesis of the research data that managers benefit the divine gift of the government organization should align employee performance with spirituality bind to customs and appreciation in everyday activities with no neglect of nature to enjoy and express your creativity in employees' work activities strengthened. The results of this study show the third sub-hypothesis that no matter how managers and meaningfulness of work in the organization to make more sense and more tangible enhanced employee performance and this result is

consistent with previous studies therefore, this study not only the significance of the relationship between factors at work feel invigorated performance but its positive impact on employee performance earned. The third sub-hypothesis based on the results of research based on the positive impact of a sense of meaning and purpose in the work of managers and the performance of the organization employees should managers of different situations with a broad perspective on the issues of daily official visits to take action and daily performance of employees in order to align the work with goals in order to achieve their career advancement feedback. The results of the fourth sub-hypothesis of this study show that no matter how executives with attitude and more effort to move toward excellence have a huge impact on improving employee performance and this result is consistent with previous studies of this study therefore implies who enjoys the spiritual intelligence will empower managers and improve the performance of employees due to the strength and spiritual intelligence of managers in the organization to improve the performance of employees. The fourth sub-hypothesis based on the results of research based on excellence, saving administrators significant and positive impact the performance of employees must get comments from staff at meetings and location of the project with a different perspective with an emphasis on the sense of inner employees pay more depth. The results of the fifth hypothesis of this study suggest that managers are more focused on inner truth has significant positive impact on employee performance and this result is consistent with previous studies and relying on the fact that spirituality in the work life of profound meaning and introspection to discover all aspects of internalized and makes the job worthwhile person thinks and governs the high objectives considered in the light of spiritual experience and a sense of unity or the emergence of a supernatural force at work, intuition and creativity strengthened and more prosperous working environment is expressed. The relationship between spiritual intelligence and performance results strengthened and extended employee and the impact of the actions of the employee's performance highlights. According to the fifth sub-hypothesis research data that the actions of the employee's performance should be based on honesty in carrying out activities and surrounded most managers' advance in the form of better things to strengthen trust and internal consistency in applying the employees interact with others to achieve true inner focus and attention.

## 7. Conclusion

Based on this research a new experience for managers of governmental organizations to provide spiritual intelligence test in addition to the standard questionnaire provided by " Amraam and Dryer " about spiritual intelligence used more attention the concept of spiritual intelligence and its application in the workplace, government organization created and since the results showed a positive and significant relationship between spiritual intelligence and employee performance on the other hand, spiritual intelligence managers have a positive impact on employee performance it will review and improve spiritual intelligence in the workplace government organization to identify factors contributing to the strengthening of spiritual intelligence of managers and staff will help government organization and finally the results can be valuable feedback

legislative bodies, including the Cabinet, the Council of Ministers, Parliament and the Guardian Council, the Expediency Council in evaluating the performance of employees and government organization provided. Hence it is necessary in future research on the application of spiritual intelligence organization and government organization to validate all aspects and findings will be assigned and the pathology of spiritual intelligence staff and managers in government organization and test the relationship between spiritual intelligence staff motivation to work and also to evaluate the staff having state of spiritual intelligence in comparison with private organizations investigated and the results will be disseminated and published.

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## THEORETICAL STUDY OF CHILD MARRIAGE (CONSEQUENCES AND HOW TO DEAL WITH )

<sup>a</sup>REZA ESMAELI, <sup>b</sup>LEILA ZARALI, <sup>c</sup>MARYAM BEHROUZIFAR

<sup>a</sup>Faculty member, Department of Sociology, Khorasgan Branch, Islamic Azad University, Isfahan, Iran

<sup>b</sup>Department of Sociology, Dehaghan Branch, Islamic Azad University, Dehaghan, Iran

<sup>c</sup>Department of Sociology, Dehaghan Branch, Islamic Azad University, Dehaghan, Iran

Email: <sup>b</sup>L\_Zarali@yahoo.com

**Abstract.** The current paper described the child marriage issue, and analyzed consequences and ways of dealing with it. Family social harms including poverty, deprivation of education, addiction and immigration to reduce the economic burden to finance the addiction are other factors involved in child marriage in Iran. Child marriage consequences can be divided into two social and physical aspects; social consequences of child marriages, including non-registered marriages and not having identity papers, the emergence of the widow child, domestic violence and spouse abuse, prostitution, running away from home, deprivation of education, suicide, increased miscarriage and premature delivery, low birth weight increase in teens, lot of pressure for pregnancy and other HIV positive, and many others are physical consequences of child marriage.

**Keywords:** child marriage, social harms, finance issue, Iran

### 1 introduction

Marriage is a socially accepted formal or legal contract establishing contractual rights and obligations between spouses, their children and their families. Although the definition of marriage varies from culture to culture, it is a global cultural institution in which interpersonal relationships are accepted (Haviland et al., 2011). Girls' marriage or engagement before puberty was common in the ancient and medieval societies (Aglilikil, 1992). In ancient Israel, contractual agreement on the young girl was considered a popular privilege to the girl's father. There got married before the age of 15 and as soon as puberty (Friedman, 1979). Studies show the presence of ample references to child marriage in 16<sup>th</sup> century literature; this indicates the widespread child marriage as a norm so that a twelve and a half-year-old girl was considered to be an adult (Ruth Lemden, 2001). In Greece, teenage girls' early marriage and motherhood were encouraged (Nancy Demend, 1994). In ancient Rome young boys were expected to marry early, ie girls and boys were married at the ages of 12 and 14, respectively (D.J.B, 2010). In the middle Ages, marriage under 16 years was common in accordance to England Common Law. Early marriages also happened in imperial China (Zhao Xie, 1999). It was only since the bedding of the 20<sup>th</sup> century that the early marriage of children was questioned. The average age of first marriage rose in many communities and many countries rose the minimum age for marriage.

### 2 Problem Statement

Many believe that child marriage or early marriage affects the lives of children by and face them with various traumatic complicated health consequences at every level of development, growth and excellence of the individual. Early marriage or child marriage is any marriage under age of 18 (United Nations Children's Fund, 2001). Many Iranian families do not register or unofficially register the marriage at an early age. According to

Society for the Protection of Children's Rights in Iran, the number of married girls under the age of 15 has increased from 33383 on 2006 to 43459 on 2009 i.e. a 30 percent increase in three year. Such an increase is the result of the traditional look, social and cultural pressures, state and religion support, deep-rooted poverty and parents desire to have control over their daughters' sexuality. In this article, we explain and describe the child marriage in Iran. United Nations referred to any type of marriage under the age of 18 years before the girl is physically and psychologically ready for marriage responsibilities and

child-rearing as child marriage. Accordingly, any marriage under this age is an early marriage; a marriage arranged by the father or the grandfather without any attention to the minimum legal age of marriage. The main factors involved in this issue include increased levels of poverty, lack of knowledge and education and compliance with the requirements of patriarchal culture and beliefs that mistakenly forces girls into early unwanted marriage, considered as a factor to support and protect them. Unfortunately, despite the physical consequences and discrimination against young girls, few steps have been taken to end the practice of early marriage of children in Iran.

There were very few comprehensive and reliable studies on the effects of early marriage on men and the extent and effects of early marriage on young boys is overlooked even by international experts that combat child marriage. This lack of empirical data led to a serious lack of knowledge about the constraints of very young boys' marriage. They are often forced to drop out of school and employed at low level jobs to meet their new family responsibilities. This marriage before puberty perpetuates cycle of poverty that is the first cause of the same marriage.

### 3 the historical roots of early marriage of children in Iran

Iran as a Middle Eastern country has always exercised part of the cultural practices of Middle Eastern countries, i.e. the Arab world. Arabic countries are located in tropical areas, where the tropical climate leads to early puberty of girls and boys that is enough to make child marriage a socially accepted custom confirmed by clergymen and religious leaders. Early marriage in tropical climate is justified because the body grows faster and there is even more sexual desire. Though Iran is not an Arabic country, but share a long and deep traditions with the Arabic Islamic world. Iranian law is written based on old and static Islam laws. Arabic language is taught in Iran schools unlike nations such as Kurds, Turks, Lor and Baluchis, etc. in Iran, which could not manage to gain the right to teach their own language in schools. Therefore, sensitivity and complexity of Arab world should be taken into account to understand the child marriage historical roots (Ahmady: 2016).

#### 3.1 Marriage law in Iran

Before the Islamic Revolution, on the basis of Article 23 of the Family Protection Act (1974), women under 18 and men under 20 years of age marriage was banned. After the Islamic Revolution this age minimum changed and it was replaced by Article 1041 of the Civil Code. According to article 1041 of the Civil Code, the marriage legal age for girls and boys was changed to 13 and 15, respectively. Moreover, marriages under these minimum legal ages can happen in case of fathers' or courts permission. Additionally, if the guardian (father or grandfather) requests and the Court conclude that she is mature enough to marry, the child can even marry at a younger age (Ahmady, 2016: 103).

Article 1041 of the Civil Code in 1934, declared that in accordance with the constitution and legality, no marriage may be established between a girl under 15 and a boy less than 18 years of age, provided that there is a certain conditions approves the validity of marriages by a lawsuit. This exclusion for fewer than 13 and 15 years of age was not included in a sense that they could not marry in any way whatsoever. A new law was enacted in 1982 that whereby the early age of marriage or age of puberty for girls and boys was 9 and 15 years of age, respectively. Accordingly, any marriage under the age of puberty was illegal. The final change in the law was passed in 2002 that emphasized on the legitimacy of marriages under the age of puberty of 13 and 15 with the consent of a competent judge as a condition.

### 3.2 Factors related to child marriage

#### 3.2.1 Age

Many jurisdictions set a minimum age for marriage, so that person must have reached a certain age (usually 18) to legally be allowed to marry. The legal marriage age at which a person can legally marry differs from the consent age. In the judicial system, the legal age of marriage is lower than that of the age of consent. Law usually is ignored in cases where one spouse is under the age of consent with preferred the age of marriage to the age of consent. Other judicial systems rejected and prevent other forms of sexual relations outside of marriage, regardless of age. Child marriage is a grim reality for many teenage girls continued to exist as a result of factors such as the concepts of honor and pride, deviant views on gender, poverty, family disintegration infrastructure, low literacy, few job opportunities, and war and conflicts. Poor infrastructure and sexual violence and attacks that in nature strengthen the likelihood of early marriage are more intense in times of war and armed conflicts. Humanitarian and Relief interventions inventive, often overlook risk of early marriage of young girls during war and unrest, while child marriage is a reality (Bruce, J, et al: 1997)

#### 3.2.2 Power of religion

Many religions are involved in determining the age of marriage. Religion controls and forms culture and norms as a significant contributing factor for those following it on their basic decisions with its power. The power of religion somehow infiltrated the role of parents that has led to the ownership of children by parents. In the nineteenth century more attention was paid to child sexual abuse (Haley, Boksal et al. 2015). Controversial policy of the Roman Catholic Church and other Protestant churches was to approve secret marriages or marriages without parental consent. In many communities in North-West Europe, marriage was rare in very young age. The church ruled that both bride and groom must be at least 21 years old to get married without the consent of their parents. Compared with Islam, even when geographical and time conditions needed, the rules of life for all Muslims all over the world is the same for both men and women to follow among them are the rules of puberty and the age of marriage as well.

Despite all the complexities of the age and maturity types, various social activities demand a certain age at onset. A certain standard or criterion for the definition of a child and an adult seems necessary in modern societies with the broad and universal social activities, demanding more participation of people. When the marriage age based on religious laws for a person is below the legal age of marriage in a country the government rule of law is predominant. To embrace early marriages culture and the social acceptability of the issue may have played a mediating role in this regard. For example, children who are married early may think that their experience is purely a social repeat of their mothers and sisters experience for generations and thus the culture is institutionalize, internalized and applied.

### 4 Types of marriage

#### 4.1 Women exchange

Women exchange is one of the many common forms of marriage mainly prevalent in Pakistan and is sharply declined in Iran.

In this social custom two girls are exchanged between the two families as part of a trade deal. Women's traditional exchange was a strategy at resolving the conflict. Arranged marriage act for peace between the two warring tribes also been widely accepted. Usually, the men and women consent is not taken into account (Judith Gardner & Judi L Bushra, 2004), and there have been very few cases where parties have refused marriage.

#### 4.2 Forced marriage and arranged marriage:

Since the mid-twentieth century many Western societies enacted laws on the equality of spouses in family law. Forced marriage occurs when one of the spouses or both are not willing to marry and at least one of the spouses is under the domination and coercion. It's a disgusting practice and is indefensible and in Great Britain has been defined as a form of violence against women, abuse and violence against children and violation of human rights. For some people, arranged marriage is a form of forced marriage. In forced marriage, one party or both is forced to marry against desire by intimidation, fear and pressure. But in the arranged marriage both parties accept marriage with their free will and full consent (State Health Office, 2005). An arranged marriage does not mean a forced marriage, because in the former spouses have the possibility to reject a marriage proposal, but it is not possible in the latter. However, the exact distinction between arranged marriage and forced marriage is very hard and may not be such a separation is made between them, because in reality they are very close concepts. It can not be said the girl's consent in arranged marriage has been based on her choice and an absolute satisfaction, because such marriages have usually been imposed through social and emotional pressure from her parents and brothers. A woman or young girl trying to reject a forced or an arranged marriage is often faced with hard reactions and in some parts of the world leads to honor killings. Family adherence to traditional customs, ethnic and tribal beliefs can get people to match. In this sense, the distinction between these two forms of marriage has never been easy, for the second type can be seen as a form of domestic violence against both children and adults (Ganguly Chntr Jay and Kay, 2009).

### 5 Consequences

#### 5.1 Health

This little information on the issue of forced marriage shows that most girls are very sad and isolated. They lose connection with their peers, do not speak to anyone because all the people who are around them approve the act of forced marriage and act upon it. Their problems remain unknown and denied their community and they become hidden victims. Improper socialization and the impossibility of continuing education and the devastating physical and psychological damage due to successive deliveries are very shocking among them. Mental health problems are often ruthlessly seen as an inevitable part of their lives (Borhaneh Selassie, 1992). Statistics on suicide among girls, who were faced with a marriage proposal, have been twice compared to those without the same condition.

#### 5.2 Education

The internal relationship between early marriage and illiteracy and low education of children is an underlying cause for low health and self-esteem and individual isolation. Undoubtedly, early childhood marriage is an end point to girls' education, especially in poor countries where child marriage is common (International Center for Research on Women, 2005). Shorten the period of study seems to be a part of the pattern of traditional social expectations about married girls. A girl is a school dropout to get married as soon as appropriate. It is necessary to point out that from the socio-cultural perspective many of these girls have been bred to marry early and spend their entire lives to household chores (Jones, Gavin, 1997).

#### 5.3 Child divorce

Child marriage with its deep roots in gender inequality affects girls more adversely when the husband is aged more than twice his wife. Children marriage is usually associated with abandoned the wife. Divorced or abandoned wife often causes more poverty, because she usually should assume sole responsibility for their children. Since the majority of these girls are married at very young age and lack education, their skills to earn is very

low (if any), and thus contributes to their further impoverishment (Bruce, G., et al., 1997). In child marriage the age of girls is usually significantly lower than their husbands, thus they were divorced in younger age groups and may experience social and economic challenges in the broader and deeper compared to those married at older age (Jefeny Rice Ruth, 2011). It is interesting that Ali Akbar Mahzon, Director of Information, Immigration Statistics and Census Organization in 2016 declared that the other organizations monthly statistical information relating to the divorce will not be announced on monthly basis from now on, and four critical statistics of (birth, death, marriage and divorce) from now on will change into three statistics with removed divorce statistics.

## 6. Conclusions

Iran has so far remained silent on the effects of child marriage. Early and children marriage is only logical and rational in its own cultural context. Child marriage continues under gender inequality chain under the influence of poverty, social expectations, cultural and sexual violence, explicit sexual norms, sexual stereotypes, social pressure and the family hardships. Changing this will require new policies and finding solutions as well as accepting norms reflection of gender equality. The fundamental reason why early and children marriage continues in traditional Iranian society is patriarchal worldview. This is why child marriage remained for generations in Iranian culture. Early and children marriage at a time when society is in the midst of conflicts and social antagonisms is seen as defense mechanism. When there is unrest or natural disasters in a country, the girls are first affected by. Parents marry their children as a mechanism for dealing with these disasters to provide their daughters with some degree of security and prosperity, especially at a time when the risk of sexual violence increases.

Common poor practices and socio-cultural gender norms in Iranian society help to maintain the custom of child marriage. In a traditional society, where the loss of virginity is still a taboo, weddings and engagement traditions are formed to avoid changing the taboos. Deviation from the norm is rare. The child at a certain age, usually in early adolescence is considered as a threat that must marry quickly. Women with low education and low social participation opportunities pass equal repressive position to their daughters. Neglecting the changes that could potentially arise in the lives of their daughters, child marriage victims who are survivors precisely committed the same manner against their children as experienced.

However, it is suggested, the legal age for compulsory education should be defined in line with defined minimum age for marriage. The law on the legal age of marriage that is now 13 for girls and 9 in case of court permission and 15 for boys, needs to be changed to 18. The official registration of all births and marriages is required to eliminate child marriages. The official registration of marriage is a fundamental step in the fight against early marriage. The government should recognize the existence and nature of early child marriage and wish to eradicate it. The political management should show a powerful policy. In addition, this rule can be coordinated with the shadows of corporate investments as well as on studies of early childhood marriage and other similar projects to provide the necessary funding. This requires long-term solutions, but not quick, short-term cures. There should be more serious effort by the government to punish those who engage in child marriage and parents who forced their children into early marriage. Targeting fathers, mothers, brothers, and husbands in the early marriage eradication interventions causes find better understanding of sexual status and the benefits gained by support and value the women and girls. Religious leaders are key and fundamental factors to change. They have a significant impact on public opinion and trust among the society and can provide cultural acceptance to delay marriage. Religious leaders potentially have

the ability to take steps against child marriage and changing attitudes of society.

Young girls should be helped to gain the power to defend themselves against adults, even parents, who want to force them to marry before they reach the age of maturity. Academic community and researchers should conduct more broad and deep research in the country and present reports on early children marriage, its nature, and the prevalence of sexual violence. In a world where the fight's against child marriage; this issue is still neglected in Iran. In other words, the new informed and active generation should be supported by pioneers in their own community to progressively eradicate children early marriage tradition.

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## THE IMPACT OF SOCIAL MARKETING ON BRAND EQUITY IN LISTED COMPANIES ON THE STOCK EXCHANGE

<sup>a</sup> SOROUSH ABDI, <sup>b</sup> ZAHRA KHALEGHI, <sup>c</sup> AMIR HOSSEIN AMIRKHANI, <sup>d</sup> MOHAMMAD ZAREI BEHI

<sup>a</sup> Master of Executive Management, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran

<sup>b</sup> MS Student MBA, Department of management, Babol Branch, Payamenoor University, Garmsar, Iran

<sup>c</sup> Associate Professor, Payame Nour University, Tehran, Iran

<sup>d</sup> MA Student of change management, Tehran Branch, Payamenoor University, Iran

Email: <sup>a</sup> s.abdi.pnu2@gmail.com, <sup>b</sup> Arezu\_khaleghi@yahoo.com, <sup>c</sup> a.h.amikhbir.2@gmail.com, <sup>d</sup> mh.zare.behipnu@gmail.com

**Abstract:** This research in term of purpose is applied and method of research is descriptive, causal. The population of this research is the fact that in the last two years investors in shares of companies listed on Tehran Stock Exchange have invested sample size, 384 students were selected through random sampling, is. To analyze the data in this study using SPSS software and confirmatory statistical technique of structural equation modeling (SEM) have been used to allow a causal link between the criteria specified model and appropriate strategies can be formulated. The findings show that advertising, marketing mix to desired behavior and the positive effect stronger than the other elements of social marketing in the company's brand equity. Positive customer benefits but also the nature and had less effect.

**Keywords:** social marketing, branding, brand equity, companies listed on the stock exchange

### 1. Introduction

Due to the limited capital of companies in the highly competitive world of today, the importance of funding for the company has doubled. Company shares through the Stock Exchange have always been considered as a way of financing for companies. Today, investment selection investment method, a wide range of factors is considered. The factors that investors consider when making decisions about buying a stock company is a combination of financial and non-financial factors. Knowledge of behavioral finance to non-financial factors influencing investment decisions reviews the company's preferred stock. Customer's subjective evaluations of brand and product companies include non-financial factors (Ghazizadeh et al., 2014). In recent years, the brand marketing has become one of the hottest topics. In decisions on mergers and acquisitions subject company's brand value is very important. Sometimes estimated value of a company is a significant share of the value of the company's physical assets. There are several approaches to measuring brand value. There are two main approaches in the field of financial approach/economic and other behavioral approach (Kapareliotis, 2010). Brand equity as the value of the brand is often described as the product. In general brand equity of all the activities that are being carried out for sale. So it can also be evaluated on the basis of marketing activities for the brand. The most important factors in building and strengthening brand equity marketing activity. The resulting brand equity investment in marketing activities has taken place in the past. Companies through marketing activities consumers are made aware and create a good image of the brand in their minds (Van Riel et al., 2005). In fact, an important investment decision to purchase is made on the market and the choice of the importance and difficulty is considerable (Ghazizadeh et al., 2014). The findings suggest that investors are always rational (predictable and unbiased) as shown by current models, do not act. Based on the theories of psychology, people tend to hold certain events in their minds if they are perceived and the imagery in some situations impacts their actions have on people's behavior. Many studies how irrational people on the issues of investment and monetary shown (Greenblat and Han, 2005)

In the past, consumer markets and investment markets were investigated separately. In fact, researchers prefer to know that

apart from marketing and finance to work together. It was only in recent years that marketing researchers (Lovett and McDonald, 2005; Schoenbachler et al., 2008) and financial investigators (Clark-Murphy and Savtar 2004; Frieder and Subrahmanyam, 2005; Gamaris, 2009) pointed out product and brand perceptions and evaluations of the company may affect individual's decision to invest in company stock. What is a promising field of research in the field of marketing / customer observed and research on the subjective preferences of investors due to factors beyond financial returns and risk stocks (Frieder and Subrahmanyam, 2007). The main focus of modern marketing theory and practice, rather than searching for products customers, satisfaction and create value for the customer to be attracted to the product or service offered (Cutler and Armstrong 2004). Cutler (1971), social marketing, design, intervention and control programs to improve the acceptability of a social idea or practice in a contact group defines (Khila, 2008). The aim is to help in social marketing principles and techniques of commercial marketing, target group needs and demands attention and by reducing barriers and encouraging them to do a social behavior, the desired behavior is common among them. In simple terms, social marketing uses marketing techniques in social issues motivate people to take action or behavior that are ultimately beneficial for them to make. In social marketing approach, marketing strategy must be adjusted the consumer happiness and provide social or improve it. And establish a balance between three main issues:

Company profits, customer demands and interests of the society (Kotler & Armstrong, 2010). The question we face in this study, whether the relationship between social marketing and subjective evaluations of brand products brand equity in a company to support its customers through the purchase of preferred stock and investing in stocks of companies with financial returns there is even less compared to other companies? So in this study, social marketing and brand equity to individual investors prefer to invest in shares of the company described above.

### 2. Research literature and theoretical foundation

Market share and enhance brand value now final concern senior management of each company. The company's performance includes objective and subjective variables and the process and outcome of the many. Some are objective performance variables such as sales volume and financial performance indicators. Some are subjective criteria such as: Good image in the market, innovation and entrepreneurship. Some companies outcome performance indicators such as: Customer satisfaction and competitiveness while some other processes such as performance management and resource planning. Market share index is an indicator of objective and outcome (Azizi, 2011).

#### 2.1 Brand equity

Since the late 1980s and early 1990s, with the advent of value was higher management philosophy, brand equity as a common thread in the business and scientific research and as an important factor for competitive advantage in the market (Leek and Christodoulides, 2012; Horg et al., 2013) 4The marketing literature for the term brand value different meanings and interpretations have been made. The original term brand value in the early 1980s by American workers in the field of advertising was used extensively for the first time. Then by academics such as Lotsr (1998), Farquhar (1989), Aaker (1991) and Keller (1993) and others was extended. The concept of brand equity has an explicit focus on attracting tangible economic value of the brand (Persson, 2011) and has great importance (Biedenbach and Bengtsson Wincent, 2012) as well as in terms of behavior, brand equity is an important criterion for differentiating which leads to competitive advantage based on the price to be competitive

brand equity create value for both customers and companies value that customers in turn used to increase value for the company (Bengtsson and Wincent, 2011). The conceptual framework of this study, different aspects of the Aaker proposed model brand equity associated with brand equity. Based on Aaker (1991) the main dimensions of brand equity and perceived quality, brand loyalty, brand awareness, brand associations and other assets related to brands) such as patents, patents and more. Although Aaker has introduced five factors influencing brand equity, due to the large scope of the Fifth Dimension is actually four factors used by researchers and even if the other views of the same four factors used (Aaker & Joachisthaler, 2010).

**Perceived Quality:** Perceived quality is one of the dimensions of brand equity and brand equity is to have a close relationship variables (Su et al., 2012). As a result of customers' perceived quality judgment by comparing expectations and perceptions of the product or service is in fact defined. **Brand loyalty:** customer brand loyalty can be as deep commitment to re-purchase the product with services on an ongoing basis in the future, despite the position and potential marketing efforts to change the switching behavior is defined (Chattopadhyay et al., 2010). **Brand awareness:** brand awareness can be a consumer's ability to identify or to remember a brand defined in a specific product category (Aaker, 1991). **Brand association:** The association and feelings about brands provides a value, which makes them distinct from other brands. That is not necessarily the name of the product and can be included in the package, specific design or photos or anything else that can be associated in humans (Gil, 2007)

Social marketing uses commercial marketing techniques to achieve a social purpose. The use of social marketing to change behavior in the areas of education, public health, education information members of cause's people adopt healthy practices and avoid unhealthy practices. The first and most important characteristic of social marketing is about changing behavior this property is unique and different makes and social marketing. (Donovan, 2011). This study aimed to investigate the social marketing of integrated social marketing model by Craig Lefevre (2010) raised have been used together to benefit the target market or part of the population is formed and the community-based social marketing of health communication, education and economic support efforts aimed at social change, oat distinguish them. Lefevre model of social marketing include: according to the customer (customer) information on the opinions, desires, needs and preferences of customers and service, idea or behavior is appropriate. (Craig Lefevre, 2010)

**Marketing mix:** a manageable set of a tool that combines them a chance to respond to the target market and customer (Craig Lefevre, 2010). **Desirable behavior:** perceptions, beliefs, intentions and consequences of current actions and behavior to customers. Nature (behavioral, products, services) necessary measures in order to achieve the ultimate goal (Craig Lefevre, 2010).

Brand equity, customer satisfaction, customer loyalty, attract and retain customers, identify and attract and retain customers, customer confidence, respect and customer service is customer-oriented, in other words and the customer is deemed to meet the aspirations and expectations (as measured how much the

customer feel their expectations, their own expectations of the customer as customer satisfaction; the customer perception of the extent to which his demands have been met. On the contrary, customer dissatisfaction, namely: the customer as much as his demands are not met (ibid)

### 3. Research Methodology

This study examines the relationship between social marketing and subjective evaluations of brand preferred stock investors to invest in the company. The study population consisted of those investors is real over the past two years in the shares of companies listed on the Stock Exchange 04.25.2016 to 04.25.2004 that date have invested Tehran (Active customers over the past two years, except for institutional investors and institutional investors) in this research, because of access to all persons who in the past two years have Tehran Stock Exchange to buy shares, unable and also because different stocks even during the day may be frequently changed hands among multiple investors, therefore, the determination of shareholders of a company or a particular industry is not practically possible, so sampling method used in this study.

That first exchange between agencies, members of 7 brokerage brokers randomly selected sampling and with, the main hall of Tehran Stock Exchange as distributing questionnaires to be determined. A questionnaire among members of the population randomly when the Main Board of Stock Securities researcher as well as 7 brokerage, to go there and buys and sells shares are distributed the number of samples using sampling formula is 384 this research is used to determine the validity of the content validity for this purpose the number of questionnaires were distributed between professors and experts in Marketing University to confirm the validity of their opinions have data collection tools. In order to determine the reliability of the questionnaire and SPSS software's alpha coefficient was calculated to separate its parts and finally the total alpha was calculated. The present questionnaire has been calculated Cronbach's alpha reliability because over 94.2 percent. The data is analyzed using structural equation modeling was conducted. Suitable techniques for modeling in this study are through the LISREL. Meanwhile, unknown coefficients of linear structural equation because LISREL method to meet and fit models involving latent variables, measurement errors in each of the dependent and independent variables, two-way causality, concurrency and interdependence are been planned.

### 4. Results

In Table (1) in the questionnaire, standard deviation and variance replies will be discussed. Significance level for all variables is less than 0.05. It can be the difference of these variables were the number 3 (equal to the number 3 rejected). Given that both the variable bound confidence level for social marketing and brand equity is positive (Table 1) it can be concluded and the average of the variable is greater than the average population. Items listed with their results analyzed by SPSS software in Table 1 is presented separately. Due to significant levels and positive bound.

Table 1: test research variables

Test number = 3						Variable
95% confidence interval		Mean difference	Significance level	Degrees of freedom	T	
Lower bound	Upper bound					
0.7006	0.8952	0.79790	0.000	380	16.121	Marketing benefits
0.3833	0.5434	0.46335	0.000	381	11.382	Nature
0.3751	0.5209	0.44797	0.000	369	12.082	Desirable behavior

0.2740	0.4782	0.37611	0.000	373	7.243	Marketing Mix
0.3590	0.5376	0.44830	0.000	381	9.871	Customer Orientation
0.2088	0.3673	0.28806	0.000	376	7.150	Brand loyalty
0.4066	0.6117	0.50914	0.000	382	9.762	Perceived quality
0.5298	0.7185	0.62413	0.000	383	13.005	Brand loyalty
0.5742	0.7609	0.66754	0.000	380	14.065	Brand awareness
0.4293	0.6146	0.52193	0.000	379	11.078	Brand association

Be sure to enter the stage of testing hypotheses ensure the accuracy of the measurement model. In this study using confirmatory factor analysis, path analysis, the factor is taken. The analysis by structural equation modeling using LISREL software is done. In each of those models before confirming the suitability and structural relations must ensure a good fitness measurement model. X2 statistic and other appropriate criteria for fitness must be examined. The appropriate model has the

following optimal conditions. X2 amount to less than 3 degrees of freedom should be and the less the better, because the difference between the test and shows model. Whatever RMSEA index close to 0.5 and 0.8 is smaller (closer to zero), fitted to most models and if that does not provide good fit criteria have to correct the output of the model using the modified payment model and then use the revised model babes and assumptions in the model. Looking at the model parameters (Table 2) it can be concluded that the model is suitable criteria.

Table 2: Measures of fitness of the main research model

CFI	NNFI	NFI	AGFI	GFI	RMSEA	$\chi^2/df$	Fit Index
> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	< 0.08	< 3	Accepted domain
0.93	0.96	0.94	0.98	0.97	0.077	2.66	Result

The study examined the relationships between the structures. Table (3) of the variables and their coding output LISREL

software are diagrams to explain further. In Figure 1 the base model study presented in standard mode and model survey indicators according to the table (2) is discussed.

Table 3: Output of research variables in the model LISREL

Variable	Equivalent to English	Equivalent to the Charts
Marketing benefits	Customer Benefits	CB
Nature	Sales Promotion	SP
Desirable behavior	desirable behavior	PR
Marketing Mix	Direct Marketing	MM
Customer orientation	Customer Orientation	CO
Brand loyalty	Perceived Quality	PQ
Perceived quality	Brand Loyalty	BL
Brand loyalty	Brand Awareness	BAw
Brand awareness	Brand Association	BAAs
Brand equity	Brand Equity	BE

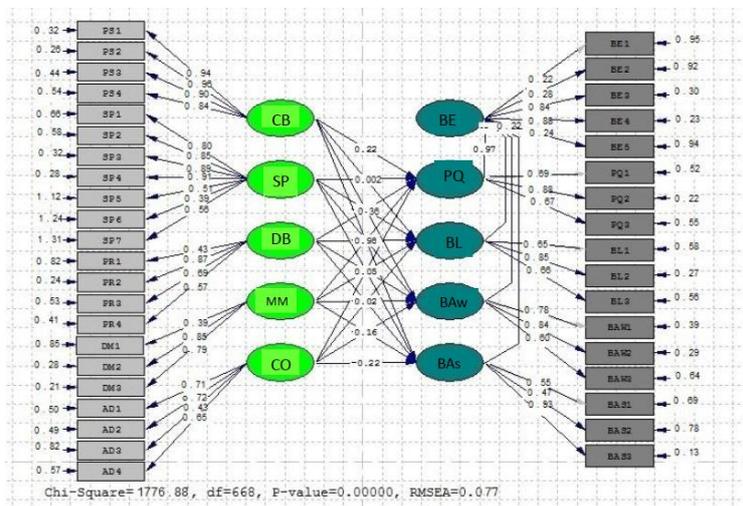


Figure 1: The base model state governor

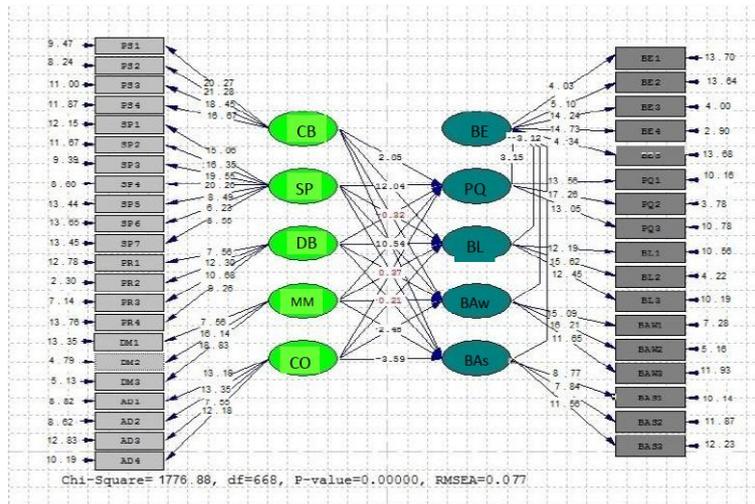


Figure 2: The base model to test hypotheses (T-value)

After reviewing and confirming the model, the research model hypotheses have been evaluated and assumptions in this section are related to each test question in the next part of the test the research hypotheses. To confirm or reject the hypothesis of a significant structural model research and numbers will be used in standard mode. Criteria for the approval or rejection of any

hypothesis is that if  $t$  in the interval  $[1.96 \text{ \& \ } 1.96]$  to be refuted and otherwise the hypothesis is confirmed.

Figure 2 shows significant coefficients critical (T-Value) for each. And structural model evaluation results of this study can be presented as Table 4:

Table 4: Summary of structural relations (Result of research hypothesis)

Hypotheses	T statistics	Impact	Conclusion (95 percent)
The nature has impact on the perceived quality of companies listed on the stock exchange.	4.57	0.23	Confirmed
The nature has impact on the brand loyalty of companies listed on the stock exchange.	2.01	0.05	Confirmed
The nature has impact on the brand awareness of companies listed on the stock exchange.	0.36	0.002	Rejection
The nature has impact on the brand association of companies listed on the stock exchange.	0.37	0.034	Rejection
The desirable behavior has impact on perceived quality of companies listed on the stock exchange.	4.48	0.36	Confirmed
The desirable behavior has impact on brand loyalty of companies listed on the stock exchange.	-1.60	0.001	Rejection
The desirable behavior has impact on brand awareness of companies listed on the stock exchange.	5.00	0.05	Confirmed
The desirable behavior has impact on brand association of companies listed on the stock exchange.	0.21	0.0076	Rejection
Marketing mix has impact on the perceived quality of companies listed on the stock exchange.	4.89	0.26	Confirmed
Marketing mix has impact on brand loyalty of companies listed on the stock exchange.	0.17	0.0041	Rejection
Marketing mix has impact on brand awareness of companies listed on the stock exchange.	2.71	0.02	Confirmed
Marketing mix has impact on brand association of companies listed on the stock exchange.	2.48	0.17	Confirmed
Customer orientation has impact on the perceived quality of companies listed on the stock exchange.	4.84	0.41	Confirmed
Customer orientation has impact on brand loyalty of companies listed on the stock exchange.	2.95	0.24	Confirmed
Customer orientation has impact on brand awareness of companies listed on the stock exchange.	2.97	0.16	Confirmed
Customer orientation has impact on brand association of companies listed on the stock exchange.	3.59	0.22	Confirmed
Customer benefits have impact on perceived quality of the companies in exchange.	2.05	0.22	Confirmed
Customer benefits have impact on brand loyalty of the companies in exchange.	12.04	0.12	Confirmed
Customer benefits have impact on brand awareness of companies listed on the stock exchange.	-0.32	0.005	Rejection
Customer benefits have impact on brand association of companies listed on the stock exchange.	10.54	0.21	Confirmed
Perceived quality has an impact on brand equity.	3.15	0.97	Confirmed
Brand loyalty has impact on brand equity.	3.45	0.13	Confirmed
Brand awareness has impact on brand equity	2.31	0.22	Confirmed
Brand associations have impact on brand equity.	3.12	0.18	Confirmed

5. Discussion

This study examined the relationship between social marketing to their company's brand equity and preferred equity investment in the company. The main hypothesis of this study entitled "The impact of social marketing and brand equity value of the investment in preferred equity investment firm is "based on the results of this study, showed that social marketing has an impact on brand equity. According to the results obtained at the top and hypotheses to the conclusion that social marketing elements of nature, the desirable behavior, marketing mix, customer

orientation and the customer benefits through affiliate mediator and the dimensions of brand equity, including perceived quality, brand loyalty and brand awareness and brand association with the brand equity of companies listed on the stock exchange is affected. This result means that social marketing policy in the population of the assets managed and liabilities of a brand that represents the value of the product or service affect production and thereby expand their brand equity. The results of the study hypothesis with the result of Sedaghat et al (2012) and Boyle et al (2010), Yu, Danto and Lee (2000) and Beheshti and Zavareh (2011) are consistent. Another finding paths analytical research refers to the conceptual model. Given that a significant

relationship between nature and benefits of brand awareness and nature of contacts and desired behavior on the desired behavior and marketing mix on brand loyalty and brand association was not found, so six routes above analysis of the conceptual model is eliminated. Once the path was split for all the routes, the indirect effect of social marketing elements on brand equity can be achieved. Since each variable through multiple paths may affect the dependent variable, thus, for calculating the indirect effects of one variable on another variable, the variable effects of the two indirect routes, are then assembled.

According to the analysis can be understood that the customer benefits from three directions on brand equity is affected: the perceived quality, brand loyalty and brand associations path, so we can say that the benefits are indirect contacts on the brand equity of companies listed on the stock exchange is effective and to this effect directly. The nature of the route on brand equity securities of companies listed on stock affected: The perceived quality path, brand loyalty. So what can be said marketing mix had indirectly impact on brand equity of companies listed on the

Stock Exchange and this effect is direct. Desirable behavior impact on brand equity is also direct through perceived quality and brand awareness of company listed on the Stock Exchange.

The desired behavior indirectly on the brand equity of companies listed on the Stock Exchange is effective and to this effect is also straight. The marketing mix on brand equity has been affecting the three routes: The perceived quality and the brand awareness and brand association. It can be said that indirect marketing mix on brand equity of companies listed on the Stock Exchange is effective and this place is also effective for customers of the four directions on brand equity is affected: The perceived quality, the brand loyalty, brand awareness and brand association. So it can be said indirectly brand equity and customer-oriented company listed on the Stock Exchange is effective and to this effect directly. On the other hand, according to completed models, we can also calculate the indirect impact. The indirect effects of the 14 route in the graph breakdown variables in the table (5) are provided.

Table 5: The indirect effect of variables

Variable	Path	indirect effect	Total
Customer benefits	$X_1, X_6, X_{10}$	$(0.22) * (0.97) = 0.2134$	0.2668
	$X_1, X_7, X_{10}$	$(0.12) * (0.13) = 0.0156$	
	$X_1, X_9, X_{10}$	$(0.21) * (0.18) = 0.0378$	
Nature	$X_2, X_6, X_{10}$	$(0.23) * (0.97) = 0.2231$	0.2296
	$X_2, X_7, X_{10}$	$(0.05) * (0.13) = 0.0065$	
Desirable behavior	$X_3, X_6, X_{10}$	$(0.36) * (0.97) = 0.3492$	0.3593
	$X_3, X_8, X_{10}$	$(0.05) * (0.22) = 0.011$	
Marketing Mix	$X_4, X_6, X_{10}$	$(0.26) * (0.97) = 0.2522$	0.2872
	$X_4, X_8, X_{10}$	$(0.02) * (0.22) = 0.0044$	
	$X_4, X_9, X_{10}$	$(0.17) * (0.18) = 0.0306$	
Customer orientation	$X_5, X_6, X_{10}$	$(0.41) * (0.97) = 0.3977$	0.5037
	$X_5, X_7, X_{10}$	$(0.24) * (0.13) = 0.0312$	
	$X_5, X_8, X_{10}$	$(0.16) * (0.22) = 0.0352$	
	$X_5, X_9, X_{10}$	$(0.22) * (0.18) = 0.0396$	

Based on the findings: total indirect effect customer benefits on brand equity are equal to 0.2668 and against the total indirect effect on brand equity and nature is 0.2296. On the other hand we can say that the total indirect effect desired behavior and marketing mix on brand equity, respectively, is 0.3593, 0.2872. Finally, customer-oriented total indirect effect on brand equity is equal to 0.5037. At the same time the most and least effective promotion mix elements on brand equity of companies listed on the Stock Exchange by changing advertising (0.5037) and variable nature (0.2668). Other variables respectively public

relations (0.3593), marketing mix (0.2872) and the customer benefits (0.2668). Most confounding variables such as the impact on brand equity securities of companies listed on the stock exchange and also the perceived quality (0.97), brand awareness (0.22), brand association (0.18) and brand loyalty (0.13). Analysis of different paths in the model showed that the ads - 0.3977 perceived quality with the highest score and direct marketing direction and brand awareness with 0.0044 the lowest impact on brand equity securities of companies listed on the stock exchange. The situation in other directions and the effectiveness of each is presented in Table 2-5.

Table 6: Ranking pathways influencing brand equity of listed companies

Effect	Path	Rank
0.3977	$X_5, X_6, X_{10}$	1
0.3492	$X_3, X_6, X_{10}$	2
0.2522	$X_4, X_6, X_{10}$	3
0.2231	$X_2, X_6, X_{10}$	4
0.2134	$X_1, X_6, X_{10}$	5
0.0396	$X_5, X_9, X_{10}$	6
0.0378	$X_1, X_9, X_{10}$	7
0.0352	$X_5, X_8, X_{10}$	8
0.0312	$X_5, X_7, X_{10}$	9
0.0306	$X_4, X_9, X_{10}$	10
0.0156	$X_1, X_7, X_{10}$	11
0.011	$X_3, X_8, X_{10}$	12
0.0065	$X_2, X_7, X_{10}$	13
0.0044	$X_4, X_8, X_{10}$	14

## 7. Conclusion

The results of the test showed that the greatest impact the brand equity of companies listed on the Stock Exchange for the customer in the store. Therefore it can be concluded that the stronger customer orientation mechanisms, appropriate channels and messages have an impact on customers can improve knowledge of the brand lead companies listed on the Stock Exchange. It is suggested that the combined investment promotion mix, is uniquely positioned to improve customer be considered. We need more measures in the field of the management of listed companies and the Securities and Exchange done in recognition of the company's brand. The second factor influencing brand equity of companies listed on the Stock Exchange has been desired behavior. The desirable behavior today plays a vital role in advancing the goals of institutions and organizations and it can be used to create positive view about brand companies listed on the Stock Exchange took advantage. In this study it was found that variables affect marketing mix on brand equity. Today, marketing in many companies as the most important factor influencing the level of understanding of the importance and special place of companies listed on the Stock Exchange can also use these tools take the initiative and by taking advantage of modern tools of advertising ahead of his rivals and it is a leader in the sale of their shares. The customer benefits also one of the items affecting brand equity in this study were discussed and the results suggest an effect on brand equity of the customer benefits. Also among the five elements of social marketing that were examined in this study, the variable nature puts minimal impact on brand equity. So it seems capitalize on the nature of the investment priorities of the customer and public relations, the efficiency is lower.

- According to the results and determine the importance of customer the desirable behavior in the promotion of the brand equity, in another study can be found in each of these elements and strategies for improving customer orientation and behavior was evaluated in brand equity.
- Investigation of obstacles and problems and provide practical solutions for customers in Iran
- Conduct research with larger sample size and statistical communities, other

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## THE IMPACT OF SOCIAL MARKETING ON BRAND EQUITY IN LISTED COMPANIES ON THE STOCK EXCHANGE

\*EZATOLLAH MOHAMMADI

*<sup>a</sup> Master of Executive Management, Gorgan Branch Islamic Azad University, Iran  
Email: <sup>a</sup> Ezatolah\_mohamadi@yahoo.com*

**Abstract:** This study aimed to investigate the effect of implementation of Prorider succession management of staff's motivation among staff of Iran Broadcasting University. The study in term of purpose is applied and in term of nature is correlation method and population consisting of staff of training center and Broadcasting University that is 250 people. To test the relationship between variables based on assumptions of correlation coefficient using SPSS software. The results showed that the implementation of succession management and significant direct impact on employee motivation, and a positive correlation between motivation and staff there all its dimensions. Therefore, implement succession management can provide fertile for creating job motivation in staff. Accordingly, some suggestions are offered to managers and researchers.

**Keywords:** Job motivation, succession management, system of succession

### 1. Introduction

Today, the factors that led to the establishment of new organizations tend to supersede and the systems in a manner quite fundamental has changed, the new era of global trends that businesses will also be affected. The most important factor in leading a relatively scarce resource and assets within the organization and always has been that of losing a powerful blow to the organization's director. The importance of this issue to the extent that it with the phrase "war on talent" that used an analogy of trying different companies to attract and keep talent management involvement and supreme leader (Boromand and Tavooosi, 2016) the rising demand of employers to recruit skilled staff on the one hand and the desire to own and taking valuable jobs on the other hand and the battle and a struggle takes shape it should be called talent wars. The successful organizations are trying to battle with the application procedures, programs and strategies that could talents are essential for the continuation of their lives, attract and maintain To this end, organizations must know what needs now and coming face to the abilities and potential of employees to be able to identify and manage talent (Gay & Sims, 2009, p.17) . A proper understanding of motivation can be organized as a valuable tool to identify causes of behavior in organizations and predict the impact of management measures to be used. Recognizing also the motivation of behavior in organizations can be guided in such a way that individual and organizational objectives be met. Several factors in motivation are low in organizations and why management should be to look for ways and techniques that would increase the motivation of your employees. Careful and systematic planning to create and maintain and increase employee motivation is the most important strategies to increase organizational efficiency (Derakhshandeh et al., 2016). Identify and train tomorrow's managers of the most important strategies for the development and survival of an organization and to create incentives for sustainability in organizations capable forces and increase choice and competition in space culturally competent organization. Undoubtedly, systematic and systemic approach to the issue of succession planning as an important element management system can be one of the ways to achieve towards nurturing talent and is a good substitute for managers (Aboallae and Ghafari, 2008)

Organizational strategy requires a holistic approach to talent management and management succession planning staff development and career path together, special strategic role in the organization of today has found. These organizations have found that succession planning is a dynamic and continuous process, it not a static target to achieve talent in today's competitive world, and organizations need to have a view beyond the simple replacement labor. As an employee succession management strategies to achieve their occupational

goals makes powerful, influences on motivation and performance in organizations (Cartwright, 2008) in this regard, experienced managers an important role in motivating employees and successfully led the organization and given the recent rise in the number of pension managers and log manager, planning to develop and replacing them is much more important. Zhasklin (2012) showed that succession management program has been effective in reducing times of economic crisis. Boromand (2016) in a positive effect on employee performance management, succession planning showed Sharifat (2015) in examining the impact on employee succession management Aghajari oil company showed an increase in the rate of succession increases in staff motivation in general, despite the importance of the issue of succession planning and the root of its long history in the field of management in our country has not been studied as a serious need. Alarm lack of systematic research on the topic of succession when played the average age was 16 years, 89 to 49 years and have thousands of industry executives to drive to work between 25 to 30 years and this suggests the need to plan and quick operation to foster worthy successor specializing in strategic posts, is critical (Pour Sadegh et al., 2013). Succession plan as part of a talent management strategy, enabling organizations to understand the current needs wats, as a result align talent development will be based on it. (Bidmeshki, 2014) The aim of this study was to investigate the influence of the main component of succession on employee motivation in order to provide effective solutions to improve employee motivation and ultimately improve the motivation of the employees. If human resources in carrying out assigned tasks, motivation and procrastination are not enough, the quality of work is reduced and thus, other resources will be wasted (Borman, Schmidt, 2007). The question is whether there is positive significant relationship between the implementation of succession management and motivation of human resources work? In this regard, the following hypotheses are proposed to be checked

### 2. Hypothesis and Operational Research Model

The main hypothesis: there is significant relationship between the succession management and employee motivation.

Sub Hypotheses:

1. There is a significant positive relationship between succession planning and employee motivation system policies in organizations.
2. There is a significant positive relationship between candidate assessment and employee motivation in organizations.
3. There is a significant positive relationship between candidate's development and employee motivation in health and therapy in Shahrreza city.
4. There is a significant positive relationship between succession evaluation system and employee motivation in organizations.

#### 2.1 The theoretical framework

Several definitions for the concept succession management, including San Brook stated that succession planning as an attempt to appropriate and high-quality managers and employees to cover retirement, death, serious illness and upgrades or new position defines any organization that could occur in the future (San Brook, 2005). In fact, succession planning decision-making process on how to fill the gaps in the organization's key jobs (Bordbar et al., 2013). Studies of organizations represent different approaches to the issue of succession. Most successful managers of organizations, the role of successor and the issue of

succession planning are considered vital to the extent that GE CEO Jack Welch says:

It seems that for successful managers in the world, selected and designated successor is one of the major management tasks (Shojaei, Seyyed Emad Aldin, Dori, Behroz, 2008)

Father To study the most widely used models in management succession management and succession planning are seven-point

star model Roswell (2003; 2010) model upgrade path led Karan (2000) Bayham accelerate team model. (2002), Kim (2006) model of succession management performance (compared to the original models) with the combination of the three models is high. Model Kim, three main models compare with each other and finally four stages through interviews with seven Asian multinational companies in America offered all three models will take to the stage. These comparisons and similarities in the table 1.

Table 1. Comparisons and similarities

	Determine the policy	Evaluating a candidate	Development candidates	Assessment of Enshin Kaikan management
Model Seven Star Roswell (2003; 2010)	1: Make a commitment to systematic succession management and implementation of succession management 2: assess current needs and working conditions 3: evaluating the performance of individual career 4: needs assessment and working conditions in the future Treasury model accelerates	5: Personal Capability Assessment	6: Closing the development gap	7: assessment succession management program
Treasury accelerate	Treasury accelerate model creation	1: candidates and Identify people with high potential Step 2: Identify development opportunities	3: prescribe solutions to development opportunities 4: ensure that development is happening.	5: review progress and determine new program 5: serious study plans and progress
LED upgrade path	1: compatible upgrade path model of leadership succession needs 2: Create a common language for defining standards for functionality and performance in the organization 3: documentation of standards-based previous step	4: assessing succession candidates Through the integration of Matrix performance capabilities		5: review progress and determine new program 5: serious study plans and progress The entire route promotion

Motivation is the result of combining proper relationship between the individual and the situation, or a situation in which it is placed. In other words, given the desire to work hard to meet the objectives of the organization in such a way that it is trying to satisfy some individual needs. So, if motives be identified and measures taken by managers that the employees feel between individual goals and is consistent with organizational objectives, motivation system organization will be successful. (Robbins, 2012) In the present study, job motivation and job characteristics model Hackman and Aldhamayn model a cognitive model of socio - integrated approach.

I have this theory by Richard Hack, and Greg Oldman developed and means that if desired, or job, or have a few key features staff motivation and satisfaction or Shaghlán or more. It features key or create the conditions that are associated with a specific psychological and in this case, increase the motivation and satisfaction of performance the relationship between job characteristics, mental states and consequences of the escalation of the willingness of employees with disabilities work in progress, namely the importance that employees are given for progress in work mentioned three factors to bind. Major features three basic modes psychological or switch jobs. These features include:

A. Variety of skills or the fact that the person to do the work of several skills, experience, ability or his ability to use (Moorhead & Griffin, 2003)

B. Understanding the job, that person knows exactly what to do from beginning to end and what the outcome or results achieved.

C. The importance of jobs, whether inside or outside the organization to work how they value and care about.

D. Or the freedom and independence of individual reliance in areas such as design, timing, and methods of work. (Mahdad, 2008)

E. Feedback giving clear information about its prototype is the result of doing things to employees (Robbins, 2000) job characteristics model has been investigated in many ways. Most research results confirm the theoretical framework (ie a set of job characteristics, and these characteristics affect behavior). But about which property (or properties) make up the core there is no consensus. Also about the need to grow can be a mediating factor activity or not there is no consensus. (Robbins, 2000, P.931)

### 3. Research method

The study in term of purpose is applied and in term of nature is correlation method. It establishes the theoretical foundations of the internet and library research. The population of Personnel and Training Center School of Radio and Television and the number of population is 250 people. Random sampling was used to select samples. The number of sample based on Cochran sampling formula (as a formula to estimate sample size in qualitative variables) is at least 140 and at most 152 and the 148 questionnaires distributed among samples collected from study and eliminating incomplete questionnaires with drop samples, 109 remained questionnaire and the same number were used for analysis. In this study, two questionnaires with 36 questions based succession management study Kim theoretical model (2006). Hackman and Oldham Job motivational questionnaire was used to measure the variables and both questionnaires answered by the staff. To check the validity of teachers to number 30 in the initial implementation and Cronbach's alpha was used to estimate and reliability of succession management was 82.0 and reliability of the questionnaire 0.83 employee

motivation to test the relationship between variables based on assumptions of the model significant research and operational research (as follows) correlation coefficient using SPSS software taking into account the significant level of  $p \leq 0.95$  for all the tests and to draw LISREL structural equation modeling software is used.

**4. Research findings**

In order to study how to implement succession on motivation and communication requirements of the Pearson correlation coefficient was used and tThe results of which are shown in the table below.

Given that this review is done Ninety-five percent confidence level the null hypothesis is accepted 9% is a significant relationship between variables, if the significance level is greater than the rule, otherwise the relationship is confirmed (table 2).

Table 2: The correlation coefficients succession management and employee motivation

The level of significance	Correlation	Variables
0.001	0.688	Evaluating a candidate
0.001	0.543	Policy determination
0.001	0.630	Candidates Development
0.001	0.722	Assessment Succession
0.001	0.721	Succession Management

The results show that the level of implementation between the requirements of succession management and employee motivation against 0.001 and from 0.05 (level of error) is smaller, therefore, the null hypothesis is rejected and there is a significant relationship between the two variables. The correlation coefficient between succession management and employee motivation is 0.721. So make policies on employee motivation is effective succession planning system, given that the survey was carried out at 95%, if more than 5% significance level indicates a significant relationship between the variables of interest and otherwise denied the relationship is confirmed. According to the results presented in the above table significance of the relationship between all aspects of succession management and employee motivation is approved. This is significant because the value is smaller than the allowable level of 0.05 relations shows that the hypotheses as had been predicted, there is positive and significant relationship between of succession management and employee motivation. The improvement in the situation of each of these dimensions can help to motivate employees. Also among the aspects of system evaluation succession had the greatest impact on employee motivation.

**4.1 Research Structural Equation Modeling**

In order to evaluate right and wrong LISREL software was used research model. In this section we try and then perform the following results were obtained on a model in which the relationships between variables and coefficients of each of them are provided.

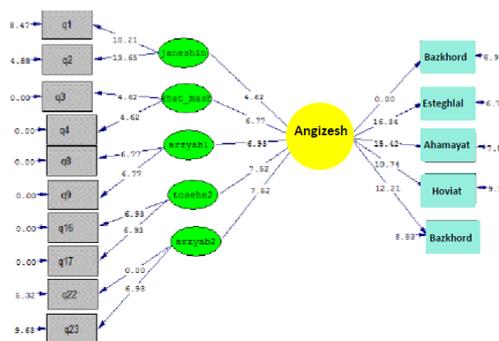


Figure 1. Research Structural Equation Modeling

The path is shown in Fig 1. The basic question raised is whether this model is a good model? To answer this question we must statistic  $\chi^2/df$  and other appropriate criteria being examined model according to the LISREL output value  $\chi^2/df$  is 0.54 times are calculated  $\chi^2/df$  bottom represent suitable fitness model because the value  $\chi^2/df$  is less than the proposed model is more suitable model and according to the results according to the following results were obtained from the output LISREL software.

$\chi^2 /df=0.54$  P-Value = 0.5676 and RMSA = 0.048 (1)

Standard ( $\alpha=5\%$ ) is therefore proposed model is a good model more than significant level.

**5. Conclusion**

Research results show that, implementation of succession management system based on Kim's succession management and employee motivation is a positive and meaningful relationship one of the factors of motivation that arises in relations with the leader of its successor. Thus, managers can make timely and accurate communication, enhances the working environment and staff are more motivated. The results of this Mehraban (2006) Khanifer et al (2009) Sharifat (2015) is consistent. So given that the factors organizations reach their goals predetermined strategic role, efficient human resources, qualified and motivated in different jobs and positions. On the other hand, it seems that the withdrawal of the various organizational levels to various reasons such as resignation, retirement, job promotion is inevitable. The creation of a vacuum and staff retention in enterprises, particularly in key jobs such as jobs, management jobs and sensitive and could cause serious disruption in the movement of the police organization. Therefore, organizations avoid disturbing your progress programs to provide qualified staff from within the organization applies for different jobs. Implementation of succession management, one of the elite force security programs for key positions in the organization is necessary. If you run this program, which in fact is organizational development program once done, will bring problems for the organization and success of the program; thus, succession management requires that the organization has appropriate and effective performance evaluation system. In fact, through this system may be capable staff and obvious competence lies and motivated identified the top job. The organization must be rational and efficient promotion system so the motivation of the personnel competence and performance and career development will increase. Talent management programs should provide areas and the ladder leading out of the ordinary talents can shortcut to the stairs up and acquire key positions. According to research findings and practical recommendations useful strategies and effective use of succession planning programs to achieve labor productivity is presented as follows:

- The organization can volunteer to staff studying related to the activities of the organization, scholarship and grant scholarships to prestigious educational institutions and centers for training personnel conclusion of the contract.
- Since most of the staff are young and highly educated, senior managers must plan and strategies such as the implementation of various training programs in accordance with the present and future needs of the organization to implement newly hired employees.
- The main executor of succession planning is an organization's human resources department. It is therefore imperative that the human resources department with the support of senior executives and managers to develop staff capabilities have been seriously; because success depends on efficient human resources specialist, and such assets that provide competitive advantage in business.
- Wise or good thing for employees to identify important meetings, balls, goals and approaches to succession planning programs to reduce the staff strength to implement these programs.

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## ROLE OF ISLAMIC REPUBLIC OF IRAN IN THE WORLD AGAINST VIOLENCE AND EXTREMISM

<sup>a</sup>SEYED MOUSA MOUSA KAZEMI NAEINI, <sup>b</sup>HOSSEIN ALEKAJBAF, <sup>c</sup>BAHAREH HEYDARI

<sup>a</sup> Department of Law, Payam Noor University (PNU), P.O.Box 19395-3697, Tehran, Iran. PhD student in International Law

<sup>b</sup> Department of Law, Payam Noor University (PNU), P.O.Box 19395-3697, Tehran, Iran, Associate Professor,

<sup>c</sup> Department of Law, Payam Noor University (PNU), P.O.Box 19395-3697, Tehran, Iran. Assistant Professor

Email: <sup>a</sup>kazeminaeini@yahoo.com, <sup>b</sup>alekajbaf@yahoo.com, <sup>c</sup>baharheydari@yahoo.com

Abstract. Islamic Republic of Iran has proceeded directly on two occasions submitting resolution to UN Court so that both options have been in favor of promoting culture of peace, compromise, and peaceful existence. In these resolutions, which are concentrated on promotion of human rights and its production, the emphasis is on prevention from violence and extremism. Hence, the task of independent governments is to prepare the field for negotiation and finding logical solution for international conflicts and benefit from this opportunity to prevent from violence and extremism that might lead to terrorism, war, threatening international peace and security. Study of legal activities of Islamic Republic of Iran at international level indicates the matter that use of military force to fight against violence and extremism itself leads to violence and extremism.

Keywords: peaceful existence, human rights, violence and extremism

### 1. Introduction

If objectives and principles contained in United Nation Charter are implemented based on legal aspects, they are holy and sublime objectives. However, experiences indicate that governments have had failures in implementation of these principles and objectives. Despite that government's claim of having policy in line with principles and objectives of UN charter, they tend to maximize their individual interests and this matter is imposed against others using military force and economic pressures. Islamic Republic of Iran, as an independent country in international scene far away from any kind of profit-driven view over West and East blocks, has announced its slogan as realization of principles and objectives of UN Charter. Resolution of Dialogue of Civilization during discussions and debates related to Huntington's Clash of Civilizations Theory in western scientific and politic associations and resolution of the World against Violence and Extremism during past three decades (both resolutions were approved in United Nations General Assembly based on consensus) indicated policy and belief of Islamic Republic of Iran in case of facing events related to international policies. Since various articles and dissertations have been written in detail about the Resolution of Dialogue of Civilizations, this matter is not studied herein; whereas, the international legal of the Resolution of the World against Violence and Extremism, its plan and achievements are examined in this study due to novelty and importance of this document. Resolution of the world against violence and extremism is an extensive resolution in terms of its domain of subjects. This resolution can be legally considered as one of important resolutions in General Assembly in terms of human rights, international peace and security. Fundamentalism raised from promoted violence at national and international levels is a trigger that military action or force is not the only solution for it in view of the Resolution of the world against violence and extremism, because the planner of this resolution assumes that violence creates violence. Accordingly, another solution except for military solution. The content of the Resolution of world against violence and extremism emphasizes on options regardless of military solution and these options are reviewed herein.

### 2. Resolution of A WORLD AGAINST VIOLENCE AND EXTREMISM (WAVE) and emphasis of objectives and principles of UN Charter

Resolution of A WORLD AGAINST VIOLENCE AND EXTREMISM (WAVE), which was designed by Islamic Republic of Iran for first time, is one of the most important direct and precise resolutions of General Assembly in field of violence and extremism. The content of this resolution was the agenda number 15 assessed in 68<sup>th</sup> session of assembly and approved through consensus without opposition of any country. This resolution consists of 28 clauses including various subjects that each of them is capable of facing extremism. The issuance reason base of this resolution, as it is mentioned in clause 1 of resolution, is requirements contained in UN Charter and the Universal Declaration of Human Rights. In other words, the assembly reemphasizes all of resolutions issued about violence and extremism, which are indeed originated from the Universal Declaration of Human Rights, in this resolution explicitly. Study of this resolution indicates that it concentrates on three basic subjects. Although it is not a new subject to review this resolution, it depicts that General Assembly has considers violence and extremism as reasons rooted in governments' behaviors.

#### 2.1 Commitment of countries to respect for Fundamental Human Rights

"Whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people" has been considered by United Nations. One of major considerations in Resolution of a WORLD AGAINST VIOLENCE AND EXTREMISM is to encourage governments to support and implement regulations related to human rights (Cordell and Wolf, 2014). Clause one of this resolution is about to illustrate a trend followed by assembly mentioning relevant resolutions issued by General Assembly in past.

In viewpoint of UN General Assembly, respect for human rights and outbreak of violence and extremism are directly related to each other. However, the human rights considered by General Assembly are not just consisted of values raised from western culture as some of member states claim, because clause 2 of this resolution and previous resolutions have concentrated on necessity of respect for "Cultural Rights" that are often considered by countries against western human rights measures. In this regard, clause 6 reminds commitment of state members of organizations mentioning necessity of respect for human rights and immediately clause 7 warns about consequences of lack of respect for fundamental freedoms. According to the mentioned clause of the resolution, member states are persuaded that war and armed conflicts might lead to fundamentalism, violent extremisms, failure in promotion of human rights and fundamental freedoms. In this regard, "the first and most important responsibility of governments is ensuring a life full of peace free from violence for citizens living in the country. The result of adherence to such responsibility would lead to peaceful coexistence of government with neighbors leading to international peace and security (Shariat Nia, 2010)".

In this field, complying regulations related to human rights is the first demand of General Assembly to cope with violence and extremism and this demand will not be met unless through academic and purposeful promotion and education of human rights and compromise culture among community members. In this case, Resolution of "A WORLD AGAINST VIOLENCE AND EXTREMISM" has considered relative comprehensive clauses to promote human rights; of that, Articles 8 and 10 can be named as examples. The perspective of UN members about

education as a mean to cope with extremism is reflected as follows:

“Underlines the vital importance of education, including human rights education, as the most effective means of promoting tolerance, in preventing the spread of extremism by instilling respect for life and promoting the practice of non-violence, moderation, dialogue and cooperation, and encourages all States, the specialized agencies of the United Nations and intergovernmental and non-governmental organizations to contribute actively to this endeavor by, inter alia, placing emphasis on civic education and life skills as well as democratic principles and practices at all levels of formal, informal and non-formal education” and “calls upon Member States to advocate for and disseminate information on tolerance and mutual respect, and underlines the potential contribution of the media and new communications technologies, including the Internet, to promoting respect for all human rights, to developing a better understanding among all religions, beliefs, cultures and peoples, to enhancing tolerance and mutual respect and thus to strengthening the rejection of violent extremism”.

Underlying citizens' education is indeed one of the most basic and fundamental human rights considered in other international documents. According to Clause 2 of Article 26 of Universal Declaration of Human Rights, “Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace”.

This subject has a wider domain in International Covenant on Economic, Social and Cultural Rights

Approved on 16 December 1966: “states member of this covenant recognize the right of everyone to free education. This is to be directed towards “the full development of the human personality and the sense of its dignity”, and enable all persons to participate effectively in society. These states believe that education should spread friendship and understanding among all nations, races and religious or ethnic groups developing UN activities in order to protect peace”( Ziaee Bigdeli, 2012).

However, about 77 billion children have existed in the world without any access educational facilities until 2010. Credible reports indicated the fact that more than half of these children are living in countries with war or semi-war conditions. These countries have had either racist, religious, ethnic conflicts or have been attacked by foreign countries. Wrong beliefs are one of the most important reasons for limited access to education at national level. The implication of such constraint is lack of awareness of citizens in problem solving in society that leads to outbreak of violence and extremism (Adami, 2012).

## 2.2 Refrain from threat or use of force in international relations

According to Clause 4 of Article 2 of Charter, “All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations”. According to the explicit content of this Article, use of military force in international community is not accepted as it is not consistent with the Charter of United Nations and social security. “Use of force and formulation of use of coercive force in international community is so ambiguous that is one of the most perplex subjects for lawyers and international law” (Grover, 2011). In fact, this regulation is a complementary for Clause 3 of Article 2 in which, government are asked to “All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered”. Despite the emphasis of Charter on non-use of

force in international relations, we still see the force used by powerful countries. For instance, the campaign of USA against Iraq has been opposed to the UN Charter and Security Council Resolutions in opinion of many of international lawyers.

The purpose of this introduction was to study resolution of a World against Violence and Extremism and its emphasis on non-use of force. Resolution of a World against Violence and Extremism has highlighted the subject in its clause 3 that “state members shall not use force in international relations” and considers outbreak of violence and armed conflicts between governments as a reason for promotion of violence and extremism. “As it is mentioned by Iranian Agent in Organization General Assembly, if states just emphasize on issuance of resolution in UN to convict violent activities regardless of circumstances leading to such behaviors, we will fail to cope with violence and terrorism” (Rosenne, 2004).

Obviously, a more extensive concept should be adopted to study “threat or use of force in international relations”. It means the attitude toward traditional use of force in international relations should be changed. Nowadays, countries rarely use force in international scene; however, use of modern means such as political intervention, economic intervention, and cyber-attacks have been considered by many of countries to influence on other countries over the recent decades. If a country commits political, religious, or racist conflicts supporting a specific political group in a country, violent implications of such intervention is more significant than military confrontation between two countries. “Racist conflicts that its implication was genocide of Rwanda, 1994 were the result of explicit interference of Belgium Government in unbalancing political forces of Rwanda Government” (Goldrick, 2004).

“Nowadays, the concept of use of force has faced a challenge considering doctrine of humanitarian intervention. In viewpoint of majority of humanitarian intervention proponents, humanitarian intervention is the only way of preventing from extensive violations of human rights in some countries; however, humanitarian intervention consists of some criteria and regulations that are not discussed herein. This intervention has not been successful due to hidden political purposes of countries”.

“In Agenda No. 116 of 60<sup>th</sup> session of General Assembly, Syria Agent declared in his speech that use of force in international community will lead to outbreak of violence, extremism, and even terrorism. For instance, occupation of Palestine by Israel and lack of recognition of it as independent country leads to violence. In this case, Israel has prepared the field for violence in this region supporting terrorist groups”. “In this regard, Israel has created serious implications in production of agricultural products and access to health services, educational institutes, and water resources due to construction of retraining walls so that it would lead to serious dangers in future” (Jnzaekovic, 2006).

## 2.3 International Condemnation of “support for violent behaviors”

International conviction of violent behaviors can be examined at two national and international levels. General Assembly and Security Council Resolutions have examined these two levels at the same time. Stimulation of violent behaviors is a potential threat against international peace and security from the perspective of Security Council. The concept of threat against the peace mentioned in Article 39 of Charter is based on any situation that put the peace in danger. In this regard, the risky crisis for peace has two specifications: first, it is explosive and second, it is the result of violation of international commitment. Explosive crisis has either international or domestic root. The root of explosive crisis is international if the behavior of a crisis-maker country is so aggressive or provocative that threatens its neighbors or poisons international environment so that a small conflict leads to a big hostility. The domestic crisis will be explosive if intolerable domestic policy of a country is

applicable for other international community countries and this intolerance is raised from legal regulations. In opinion of some scholars, explosive crisis will be realized in presence of governments that violate primitive regulations of human rights applying aggressive policies.

In case of international condemnation of support for violent behaviors, the studied resolution expresses in Articles 5, 10, and 12:

Stresses that it is important that States strongly condemn all forms of violence against women and refrain from invoking any custom, tradition or religious consideration to avoid their obligations with respect to its elimination, as set out in the Declaration on the "Elimination of Violence against Women". State members are asked to provide field for mutual respect and compromise supporting freedom of information and news.

The other issue about prohibition of violence is the domain of violence should be wider than violence against "human groups". For instance, Resolution for "Freedom of Religion or Belief" dated on 20 December 2012 has considered any kind of destruction or attack to religious places or shrines as an explicit violation of human rights and humanitarian rights in its clause 3 of Article 11. Accordingly, states shall refrain from any support that leads to religious violence or extremism. The other matter related to cope with violence is that discriminative rules existed in domestic laws of countries should be eliminated. It can be stated that General Assembly somewhat has mentioned this demand in each resolution related to "international peace and security" or "violence and extremism".

### **3. Reasons and effects of the project of a World against Violence and Extremism**

In 2013, global and regional conditions and circumstances were so considered by some of countries so that Iran was introduced as the great supporter of violent groups. Almost after September eleven attack and speech of Jorge Bush in which, he introduced three countries named Iran, Syria, and North Korea as the axis of evil. Iranphobia and Shiaphobia became one of propaganda priorities and foreign policy of USA and some other states. This issue was not just confined to anti-Iran propaganda but also it consisted of practical measurements. This subject besides conflicts between West and Iran about nuclear program made Iran to face serious challenges in terms of international relations and economic aspect. Regardless of challenges against Iran, the most important challenging issue of Iran was lack of trust of Security Council in Iran's activity in field of nuclear program and transmission of this opinion to other parts of UN; hence, they tried to prevent from Iran's progress. In such circumstances, a distinguished environment was required to interact with the world. According to such vision and the issue that the first step in international interaction to eliminate concern about "Iranphobia", resolution of a world against violence and extremism was submitted by Iran to General Assembly of United Nation. In the following, details of this resolution are examined herein.

#### **3.1 Necessity and reasons for submission of the Resolution of a World against Violence and Extremism**

As we can see, occurrence of horrendous crimes in Middle East has been expanded over the recent 5 years. Occurrence of revolution in Arabic countries, repetitive aggression of Zionist Regime against Palestine, civil war in Syria, military attack of Saudi Arabia against Yemen and phenomenon of "Daesh" are the most important incidents related to Middle East. In such circumstances, Islamic Republic of Iran is the only country with stable and calm condition in this geographical region. Accordingly, it was expected that Iran could play a key role in creation of peace in this region considering such conditions. One of the initial measurements of Iran was submission of the Resolution of a World against Violence and Extremism to UN General Assembly. In this case, numerous propagandas of

western countries against Iran accusing it of construction of nuclear weapon and creation of insecurity in Middle East, which was not responded through an official and diplomatic reaction, tended to destroy the international face and foreign policy of Iran that have been fluctuating over the years. Accordingly, Islamic Republic of Iran submitted Resolution of a World against Violence and Extremism through understanding of the international fact that "Iranphobia" might impose a high cost to Islamic regime. According to the Author, objectives of Resolution are classified to two following bases:

#### **3.2 Counter with Iranphobia**

"Iran has been superior to its neighbors, in particular southern neighbors, in terms of military and economic power so that this power sometimes have made them concerned, review of contemporary history of foreign relations of Iran indicate that this concern has been existing during history and there has been a fear whenever the power of Iran has been changed. Iran benefits from a considerable power in different power scopes including from population to wide range of resources and geopolitical condition in Middle East and this issue has made other countries concerned. Capabilities of Iran in traditional and modern scopes of power at regional scale have made Iran as the only potential option of regional hegemony. Therefore, the first concerning reason for Iran or Iranphobia is the power of Iran; hence, it cannot be changed due to its structural aspect". Except for factitious conflicts and charges against Islamic Republic of Iran by neighboring countries, the other issue was related to nuclear activities of Iran. Iran's accusation of human rights violation and support for terrorist groups has been more considered after revelation of Iran's progress in peaceful atomic program and modern technologies. Hence, Islamic Republic of Iran submitted resolution of a World against Violence and Extremism to UN General Assembly knowing the combination of atomic activities of Iran with some matters such as human rights in international organizations is only for destruction of international face of Iran government. Official declaration of some positions such as hatred of terrorism, respect for human rights, and governance of law and lack of believe in use of military measures when facing controllable violence could attract the public opinion. Parallel to submission of Resolution of a World against Violence and Extremism, the diplomatic negotiations about nuclear program could achieve suitable results choosing an expert group of lawyers so that these negotiations could lead to reduced Iranphobia. However, it seems that Resolution of a World against Violence and Extremism cannot meet all objectives in this scope during long term due to flow of excuses and sabotages.

#### **3.3 Changes and moderation in international policies of Islamic Republic of Iran**

The other micro-negotiation trend emerged in foreign policy of Islamic Republic of Iran after the rise of eleventh government. This micro-negotiation called moderation based on general negotiation of this government. According to the transformation logic and negotiation cycle of foreign policy of Islamic Republic of Iran, moderate negotiation can be called as "realistic idealism". Central point of moderation is balance that is defined as the balance between ideal and reality, different types of rationalities, Islamic expedients and national interests, objectives of foreign policy, goals and measures of foreign policy, national power elements, use of power and diplomacy, right and task, three principles of dignity, wisdom and expediency, structure of foreign policy and development of foreign relations. Elements and minutes of moderation negotiation consist of idealism, realism, balanced rationalism, result-oriented adherence, constructive engagement, security seeking, and status seeking, peace, justice, transformation-orientation, perfectionism, balanced development-orientation, and balanced multilateralism.

In this case, the moderation that is realized in international scene includes of a calm behavior when facing international issues, in particular in subjects related to international and non-

international conflicts. In other words, full knowledge of quality and reasons for occurrence of an incident before supporting or eliminating it can pave the way to settle disputes and conflicts that are the origin of violence and extremism. Legal doctrine of Islamic Republic of Iran at international level is moderation in making decision on fight against violence and extremism. According to this doctrine, at the start point of conflict, decisions should not be made with opportunity-destroying delay when facing violence and war, because it is harder to control and expanded violence that cope with a primitive violence. Also, the decision not be made as if violent activities of beneficiaries are accepted by others.

#### 4. Conclusion

If objectives and principles contained in United Nation Charter are implemented based on legal aspects, they are holy and sublime objectives. However, the bilateral and interest-oriented approach of permanent members of Security Council, who have numerous authorities, based on the Charter, has created challenges for implementation of these principles. The consequence of changing common principles and objectives, which one of them is use of force in international relations, would expand violence and extremism in international scene. Islamic Republic of Iran is not believed in traditional factions among countries considering that weakening of these principles and objective would lead to violence extremism, and even terrorism and horrendous terrorism. Hence, Iran has tried to invite governments, in international scene and in UN General Assembly in particular, to respect for regulations existing in international agreements such as UN Charter and Universal Declaration of Human Rights, because violence and extremism can be prevented referring to these regulations and documents. Accordingly, Islamic Republic of Iran has considered Violence and Extremism as specific matters. In this regard, Iran has made many efforts to expand the concept of "violence prevention". The result of these efforts include submission of two resolutions to UN General Assembly in order not only draw the attention of states toward prevention but also prevent from political disadvantages for Iran at international level that have been considered lately as Iran Confrontation and Iranphobia.

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## THE RELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS OF HUMAN FACTORS WITH INFORMATION TECHNOLOGY ACCEPTANCE AMONG STAFF OF YOUTH AND SPORTS DEPARTMENT IN KERMANSHAH

<sup>a</sup>ARASH SARVARI, <sup>b</sup>FARIDEH ASHRAF GANJOUEI <sup>c</sup>ALI ZAREI

<sup>a</sup> Department of physical Education, Tehran Central Branch, Islamic Azad University, Tehran, Iran

<sup>b</sup> Department of physical Education, Tehran Central Branch, Islamic Azad University, Tehran, Iran

<sup>c</sup> Department of physical Education, Tehran Central Branch, Islamic Azad University, Tehran, Iran

Email: <sup>a</sup>arash.sarvari.as@gmail.com,

<sup>b</sup>Farideh.Ashraf.Ganjouei12@gmail.com,

<sup>c</sup>Ali.zarei.aa@gmail.com

**Abstract.** This study aimed to examine the relationship between demographic characteristics and information technology acceptance among staff of Youth and Sports Department in Kermanshah. The population consisted of staff of Youth and Sports Department in Kermanshah in 2015. Using Cochran formula, the sample size was determined to be 120 subjects. The research tools included demographic questionnaire and Davis' Technology Acceptance Model questionnaire. Using SPSS software, the Kolmogorov-Smirnov test, Pearson correlation, and regression were used for analyzing the data. The significant level was determined to be 0.01. The findings showed that there was no significant relationship between gender and level of education. There was a significant relationship between age and technology. The education did not impact on technology. The increased employment history led to increased information and technology knowledge score. The increased skill level of people in software led to increased use of other software. The age did not impact on using software. An increase in age led to increase in using technology. The gender had no effect on ease of use of technology. Also, the gender had no effect on skill of using IT.

**Keywords:** Information Technology, Youth and Sports Department's staff.

### 1. Introduction

In informational developed countries, the use of information technology in education system aims to diversify teaching methods and create proper grounds for deepening education and training. For this reason, these countries use various facilities of information technology as a complement to traditional training to increase the richness and quality of education. On the other hand, the informational developing countries use information technology as a means to extend public education and make closer the physical distances, especially in rural and remote areas. In Iran, however, the information technology is notable in both perspectives: increasing the richness of education (access quality) and increasing access to learning environments (access quantity) (Masoudi, 2012). As a way to train healthy human resources, the development of physical education and sport is considered to be a part of national development plans. Thereby, the creation of necessary conditions to facilitate exercise and training, development of community vitality and health, and provision of spaces for using information technology are inevitable to achieve research and service objectives for all (Gerssion & Anderson, 2004). In recent decades, there have been an increase in role of information technology in organizations, especially in universities; however, the resistance to deployment of advanced information technology is significantly high (Ali Ahmadi, 2002). Today, the changes are far more fundamental than the transformations and changes in

industrial revolution era. So, the organizations have to use the late technology achievements to survive in competitive and changing environment and achieve the highest level of their abilities (Shahi Beigi, 2005). The increased market competitions have caused the organizations use new technologies to remain in competition; the IT is one of these technologies. In today's dynamic business environment, the information technology is widely used. While the managers might ignore and avoid from IT-related decisions in the past, this is today impossible in most industries. This high dependence on IT indicates the vulnerability of business which is due to IT nature. The information technology not only has the ability to support the existing business strategies, it may also formulate new strategies. In other words, the information technology is a success factor for continuance of business and also a feature for differentiation and competitive advantage of organization (Van Garm Bergen, 2009). Spacy, Goulding, and Murray (2004) investigated the features of public library staffs which influenced their attitudes towards internet. They examined the effects of gender age, computer skills, experiences in the field of information and communication technologies, and subjective norms. The findings suggested that the job position of employees impacted on their perception of ease of use of internet. Most employees had computer skills, perceived using internet as easy, often worked with it, and had the intention of re-using computers and Internet.

### 2. Methodology

This was cross-sectional descriptive- analytic study. The population consisted of staff of Youth and Sports Department in Kermanshah in 2015. Using Cochran formula, the sample size was determined to be 120 subjects. The research tools included demographic questionnaire and Davis' Technology Acceptance Model questionnaire. Davis's Technology Acceptance Model had five sections: 1) demographic information, 2) employees' subjective perception of usefulness of using information technology which included questions about efficiency, effectiveness, and usefulness of information technology, 3) six questions on employees' perceived ease of use of information technology which included ease of use, ease of interaction with system, and easy learning of technology, 4 and 5) six questions on employees' attitude towards information technology and using information technology. The Likert scale was used to convert qualitative values to quantitative values: 1, 2, 3, 4, and 5 for strongly agree, agree, no comment, disagree, and completely disagree, respectively. The descriptive (tables and graphs) and inferential statistics were used for analyzing the data. Using SPSS software, the Kolmogorov-Smirnov test was used to test the normality of data distribution and Pearson correlation and regression were used to test the hypotheses. The significant level was determined to be 0.01.

### 3. Findings

According to table 1, the sample consisted of 120 subjects. However, 49 (40.8%) and 71 (59.2%) subjects are female and male, respectively.

Table 1. Distribution of subjects in terms of gender

Gender	Frequency	Percentage
Male	49	40.8
Female	71	59.2
Total	120	100

According to table 1, 49 and 71 subjects are female and male, respectively.

Table 2. Distribution of subjects in terms of age (years)

	Frequency	Mean	Standard deviation	Minimum	Maximum
Age	120	33.78	0.886	18	62

According to Table 2, the average age of subjects is 33.78 years old (SD= 0.886). The youngest and oldest subjects are 18 and 62 years old, respectively.

Table 3. Frequency distribution of participants in terms of education level

	Frequency	Percentage
Diploma	28	23.3
Associate	46	38.3
Bachelor	27	22.5
Graduate	16	13.3
PhD	3	2.5
Total	120	100

According to table 3, 23.3, 38.3, 22.5, 13.3, and 2.5% of participants had diploma, associate, bachelor, graduate, and PhD

degrees, respectively; most of the participants had associate degree.

Table 4: Individuals' years of service

N	Valid	120
	Missing	0
Mean		7.48
Std. Error of Mean		0.669
Median		5
Mode		2
Std. Deviation		7.327
Minimum		1
Maximum		30
Sum		897

According to table 4, the average of participants' years of service is 7.48 years.

The following table shows the number of times that people use IT knowledge. As it can be seen, most use of IT knowledge is by those who use 2-3 times a month on average.

The lowest and highest of years of service is 1 and 30 years, respectively. The highest frequency dedicates to people with 2 years of service.

Table 5: Frequency of using IT knowledge

	Frequency	Percentage	Percentage points	Cumulative frequency percentage
Valid	Less than once a month	5	4.2	4.2
	2-3 times a month	36	30	34.2
	Once a week	33	27.5	61.7
	2-3 times a week	9	7.5	69.2
	once a day	16	13.3	82.5
	Several times a day	21	17.5	100
	Total	120	100	100

According to table 5, the use of technology knowledge at least once a day is 13.3 percent. And the people who use it less than once a month is 4.2 percent.

Table 6: Using technology knowledge in related jobs

	Frequency	Percentage	Percentage points	Cumulative frequency percentage
Valid	Library services	2	1.7	1.7
	Finance and Budget	2	1.7	3.3
	Guidance and control activities	2	1.7	5
	Communication with others	6	5	10
	Searching for Information	18	15	25
	Orders	13	10.8	35.8
	Reporting	13	10.8	46.7
	Writing letters	18	15	61.7

	Store and restore	17	14.2	14.2	75.8
	Decision making	15	12.5	12.5	88.3
	Data analysis	3	2.5	2.5	90.8
	Forecasting and planning	6	5	5	95.8
	Analyzing problems	5	4.2	4.2	100
	Total	120	100	100	

According to table 6, the highest use of technology is in letter writing and searching for information area (=15%) and the lowest use level is in library services, finance, and controlling and directing activities (=1.7%).

The level of skill in using electronic tools and technology is specified in Table 7.

Table 7: Skill in using electronic tools and technology

		Frequency	Percentage	Percentage points	Cumulative frequency percentage
Valid	Library software	3	2.5	2.5	2.5
	Online communication	7	5.8	5.8	8.3
	Word processors	28	23.3	23.3	31.7
	Data bases	13	10.8	10.8	42.5
	Graphics software	19	15.8	15.8	58.3
	Statistical software	21	17.5	17.5	75.8
	Programming language	6	5	5	80.8
	Applied and expertise software	1	0.8	0.8	81.7
	World Wide Web	12	10	10	91.7
	Email	10	8.3	8.3	100
	Total	120	100	100	

As it can be seen, 2.5 percent of people use library software and 5.8 percent use online communication.

The lowest usage is in applied and specialized software area.

The highest use of electronic tools is in word processing and typing text areas (=23.3%).

The participants' use of various electronic software is provided in following table.

Table 8: Number of software used in technology

		Frequency	Percentage	Percentage points	Cumulative frequency percentage
Valid	One software	9	7.5	7.5	7.5
	Two software	48	40	40	47.5
	3-5 Software	29	24.2	24.2	71.7
	6-10 Software	16	13.3	13.3	85
	More than 10 software	18	15	15	100
		Total	120	100	100

According to table 8, 7.5 percent of individuals use one software, 40 percent use two software, and 15 percent use more than 10 software.

In the following, the independence or dependence of subscales is investigated.

According to table, the correlation coefficient between age and technology score is 0.4; this shows that there is weak correlation between these two variables. Also, the significant level of 0.00 indicates that there is a correlation between variables.

Correlation between gender and education level of subjects:

According to table 9, the significant level of 0.44 implies that there is no significant relationship between gender and level of education.

Test of independence between dependent and independent variables:

This means that gender and education act independently and do not impact on each other.

Table 9: Correlation between gender and education level of subjects

		Education level of subjects					Total
		Diploma	Associate	Bachelor	Graduate	PhD	
Gender of subjects	Male	9	20	13	7	0	49
	Female	19	26	14	9	3	71
Total		28	46	27	16	3	120

Table 10: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.733	4	0.443
Likelihood Ratio	4.827	4	0.306
N of Valid Cases	120		

Correlation between age and technology knowledge score:

This means that an increase in age leads to increase in technology score.

According to table 11, the significant level of 0.01 implies that there is a significant relationship between age and technology.

Table 11: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1171.790	1020	0.001
Likelihood Ratio	436.722	1020	0.000
Linear-by-Linear Association	19.644	1	0.000
N of Valid Cases	120		

Correlation between education level and technology knowledge score:

This means that education level and technology score act independently and do not impact on each other.

According to table 12, the significant level of 0.349 implies that there is no significant relationship between education level and technology.

Table 12: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	141.816	136	0.349
Likelihood Ratio	136.523	136	0.471
N of Valid Cases	120		

Correlation between service years and technological knowledge in related jobs:

This means that the increase of employment history increases information and technology knowledge score.

According to table 13, the significant level of 0.01 implies that there is a significant relationship between service years and technology.

Table 13: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	344.883	264	0.001
Likelihood Ratio	175.987	264	1
N of Valid Cases	120		

Correlation between skill of using electronic software and number of used software:

According to table 14, the significant level of 0.047 indicates that there is significant correlation between skill of using software and number of used software.

This means that people with high skill of using software use more software.

Table 14: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.319	36	0.047
Likelihood Ratio	46.087	36	0.121
N of Valid Cases	120		

Correlation between age and using software;

This means that age and using software are independent and not influenced by each other; people in all ages work with any software.

According to table 15, the significant level of 0.886 indicates that there is no significant relationship between age and using software.

Table 15: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	242.314	270	0.886
Likelihood Ratio	199.135	270	1
N of Valid Cases	120		

Correlation between age and positive attitude to IT knowledge:

This means that the positive attitude to technology increases with age.

According to table 16, the significant level of 0.01 indicates that there is significant correlation between age and positive attitude to technology knowledge.

Table 16: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	392.253	330	0.010
Likelihood Ratio	223.025	330	1
Linear-by-Linear Association	19.008	1	0.000
N of Valid Cases	120		

Correlation between age and usability of technology knowledge:

According to table 17, the significant level of 0.00 indicates that there is significant correlation between age and usability of technology knowledge.

This means that the usability of technology increases with age

Table 17: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	433.446	300	0.000
Likelihood Ratio	239.113	300	0.996
Linear-by-Linear Association	17.364	1	0.000
N of Valid Cases	120		

Correlation between gender and ease of using technology:

This means that gender has no effect on ease of using technology.

According to table 18, the significant level of 0.579 indicates that there is no a correlation between gender and ease of using technology knowledge.

Table 18: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.516	10	0.579
Likelihood Ratio	8.705	10	0.560
N of Valid Cases	120		

Correlation between gender and skill of using technology knowledge:

This means that gender has no effect on skills of using technology knowledge.

According to table 19, the significant level of 0.589 indicates that there is no correlation between gender and skill of individuals in using technology knowledge.

Table 19: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.462	9	0.589
Likelihood Ratio	7.902	9	0.544
N of Valid Cases	120		

Correlation between education level and positive attitude to technology knowledge:

This means that education has a significant impact on positive attitude toward technology knowledge.

According to table 20, the significant level of 0.034 indicates that there is significant correlation between education level and positive attitude to technology knowledge.

Table 20: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	62.604	44	0.034
Likelihood Ratio	55.253	44	0.119
N of Valid Cases	120		

#### 4. Conclusion

There is a significant relationship between demographic characteristics and acceptance of ICT knowledge. The significant level of 0.01 implies that there is a significant relationship between age and technology. The significant level of 0.589 indicates that there no relationship between gender and skill of individuals in using communication technology knowledge. This finding is consistent with research results of Mohammadi, Shams, and Parvin (2008) who showed that the gender has no effect on acceptance of technology. The significant level of 0.349 indicates that there is no significant relationship between education and technology. The significant level of 0.01 implies that there is a significant relationship between service years and technology. This means that by increasing of service years, the information technology knowledge score increases.

There is significant correlation between demographic characteristics and technology acceptance model and IT knowledge acceptance. The significant level of 0.01 indicates that there is a significant relationship between age and positive attitude to technology. This means that the positive attitude to technology increases with age. The significant level of 0.579 shows that there is no relationship between gender and ease of using technology knowledge. The significant level of 0.034 indicates that there is a significant relationship between education level and positive attitude to technology knowledge. This means that education has a significant impact on positive attitude towards technology knowledge.

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## INVESTIGATING THE EFFECT OF EMPLOYER BRAND ON JOB SATISFACTION: A CASE STUDY OF DANA INSURANCE

<sup>a</sup>POOPAK SAMADI, <sup>b</sup>SEYED ABBAS HEYDARI

<sup>a</sup> Management faculty- Islamic Azad University Tehran central branch, Tehran, Iran

<sup>b</sup> Management faculty- Islamic Azad University Tehran central branch, Tehran, Iran

Email: <sup>a</sup>poopak.samadi.ps@gmail.com,

<sup>b</sup>bseyedabbas.heydari7@gmail.com

**Abstract.** The present research aimed to investigate the effect of employer brand dimensions on job satisfaction. The research population consisted of 200 employees of Dana insurance branches in Tehran. The sample size was estimated 131 employees using Cochran formula. Data were collected through questionnaire. The reliability of questionnaire was reported (0.87) using Cronbach's alpha. Regression analysis showed that employer brand has a significant effect on job satisfaction. Also, variables of fame and reputation, social responsibility and diversity affect job satisfaction; however, significant effect of training and development, work-life balance and organizational culture on job satisfaction was rejected.

**Key Words:** Employer Brand, Training and Development, Diversity, Fame and Reputation, Social Responsibility, Work-Life Balance, Organizational Culture, Job Satisfaction

### 1 Introduction

By increasing competition in all areas of business, companies have begun a competition and battle in the new field of competition and market, namely the labor market. Attraction and retention of skilled and experienced workforce have become major challenge for many companies. Several researchers have pointed to the importance of human capital as a source of competitive advantage and warned the necessity to have qualified and skilled staff. As a result, development of intelligent strategies to become a selected employing organization (employer) in labor market can create a sustainable competitive advantage for the company. Employer brand is the main goal of branding activities in labor market which encourages jobseekers to accept a job offer from the employer and also encourages current employees to stay in the organization and consequently, it can create competitive advantage for organization in the labor market (Hamidianpour, et al. 2013)

Prasad (2016) introduces employer brand dimensions, including training and development, diversity, fame and reputation, social responsibility, work-life balance and organizational culture. Various studies in this regard have indicated that future employees (potential) and also current employees of the organization pay attention to mentioned dimensions to choose an employer or stay in an organization and development of each component leads to better attraction of desired workforce and commitment among current employees (Prasad, 2016).

Commitment and job satisfaction are closely related to each other. A positive relationship between employees' commitment and job satisfaction has been approved (King & Grace, 2010).

Job satisfaction is defined as a person's emotional state resulted from evaluation of his work in achieving or facilitating achievement to occupational value (target) (Lok & Crawford, 2004). Job satisfaction is a structure which is directly related to organizational outcomes such as employee turnover, motivation, commitment and productivity (Wright & Davis, 2003).

According to Backhaus & Tikoo (2004), employer brand leads to job satisfaction through a strong organizational culture. However, very little empirical research has been conducted on the effect of employer brand on job satisfaction (Schlager, et al. 2011; Lelono & Martdianty, 2013).

Despite the competitive environment prevailing in the country's insurance market, Dana Insurance Company has been able to promote its position in terms of market share to be the country's

third-largest insurance company through making comprehensive efforts over the last years. The company's managers can develop job satisfaction on one hand and promote brand performance on the other hand through correct use of employer brand and consequently can expand market in different parts of insurance. Hence, investigating and recognizing the effects of company's employer brand can be a great step for gaining competitive advantage. The main question of the present study is as follows:

"Is employer brand effective on employees' job satisfaction in Dana Insurance Company?"

### 2 Theoretical framework of the research

#### 2.1 Employer brand

Employer brand is a combination of marketing and human resource management (Edwards, 2009). Employer brand is a term with a concept of product brand and is an image offered by the company to potential employees in the labor market of the human resources. Different images will attract different types of jobseekers. Watson Wyatt's definition of employer brand includes internal and external aspects. He believes that employer brand means the position of employer in the human resources market showing current and future employees the image of organization brand; it includes two dimensions; external and internal brands. External brand is created for potential employees to be encouraged to join the organization and internal brand is created for current employees including promises which would be implemented by the company (Watson, Wyatt, 2005).

#### 2.2 Employer brand dimensions

##### 2.2.1 Work-life balance

Work-life balance strategies can help promotion of employer brand which leads to increased desire in employee to stay in the organization (Barrow & Mosley, 2011). Development of employer brand with no work-life balance as one of its components can be very difficult for an organization (Barrow & Mosley, 2011). Research conducted by Hillebrandt (2013) shows that work-life balance is an important component to create a strong employer brand.

##### 2.2.2 Reputation

Reputation or credibility has always been a very important asset for a company to gain a competitive advantage over its counterparts. This dimension helps a company become "employer selection" (Sutherland, et al., 2002). According to studies conducted by Moroko & Uncles (2005), reputation is considered as one of the components of employer brand. Combination of company's reputation and employer brand will help the company sustain its reputation (Moroko & Uncles, 2005).

##### 2.2.3 Diversity

Cox (2001) has defined diversity as variety of social and cultural identity among employees in a work environment. Regarding diversity, employers can create a better working environment where in workforces do the best. Schlager et al. (2011) introduced "value of diversity" as an important factor in employer brand. In the present study, diversity reflects both variety in work activities and multi-faceted workforce.

##### 2.2.4 Organizational culture

Robbins (2005) defines organizational culture as "a system of shared meaning of values of the members of an organization which distinguishes it from other organizations." Organizational

culture is an important factor affecting employer brand. Employer brand can be promoted by strengthening and developing important aspects of the culture of an organization (Barrow & Mosley).

### 2.2.5 Training and development

This dimension explains the role of training and staff development by promoting the necessary skills needed for both current and future occupational position. Wilden, et al. (2010) point out the importance of development opportunities (and growth in working environment) by potential employees to evaluate an organization.

### 2.2.6 Companies' social responsibilities

Employees prefer working for a company which offers an ethical work environment. The company would be able to create a positive image in the minds of current and potential employees through doing social responsibilities. Hillebrandt & Ivens (2013) have defined social responsibility as a new significant dimension of employer brand.

### 2.2.7 Job satisfaction

Job satisfaction means employee satisfaction from his current occupational position. Researchers have proposed various definitions of job satisfaction. Robbins (2005) defines job satisfaction as one's total inner feelings towards his job. Job satisfaction is a structure which is directly related to organizational outcomes such as employee turnover, motivation, commitment and productivity (Wright & Davis, 2003; Winterton, 2004).

## 2.3 Employer brand, its dimensions and job satisfaction

Since consumer brand helps create customer satisfaction, employer brand enhances employee satisfaction. Backhaus & Tikoo (2004) concluded that employer brand leads to job satisfaction through a strong organizational culture. However, very little empirical research has been conducted on the effect of employer brand on job satisfaction (Schlager, et al. 2011; Lelono & Martdianty, 2013).

Training and development is an important dimension for companies by which training and transfer of technology related to business or products take place (Biech, 2008). This dimension includes variables such as training and development programs and professional development opportunities and other items. Some of previous studies have also indicated a direct relationship between development and training opportunities offered by organization and job satisfaction (Thacker & Holl, 2008; Mariani, et al., 2013).

Many studies have focused on the predictive role of department image (Yu & Cable, 2011) in explaining job satisfaction. As Elsbach & Kramer (1996) proposed, reducing the credibility of an organization leads to promotion of dissatisfaction among employees.

Studies have shown that diversity is one of the most important factors affecting job satisfaction (Campbell, 2009; Longhi, 2011; Pitts, 2009). According to research conducted by Ongori & Agolla (2007), diversity refers to employees from different social and cultural perspectives within the company.

Work-life balance is an ideal balance between personal and professional life of a person. Clark (200), Pasewark & Viator (2006) have concluded that any conflict between work and family can lead to dissatisfaction among employees. Aryee, et al. (2005) also argue that the higher level of work-life balance among employees, the higher level of job satisfaction among them.

A research conducted by Koh & Boo indicated that if an organization only focuses on profitability with no regard to ethical standards, employee satisfaction will be reduced. Similarly, Coldwell et al. (2008) found that employees will be satisfied, if they observe organization's commitment to ethical responsibilities towards the society.

Dimensions of organizational culture and their effect on job satisfaction have been investigated in different studies (Lok & Crawford, 2004). A research conducted by Odom et al. (2003) showed that attitude and behavior of employees have increased by promoting innovative culture.

## 2.4 Purposes of the Research

### The Main Purpose

Investigating the Effect of Employer Brand on Job Satisfaction

### Subsidiary Objectives

- Investigating the effect of training and development on job satisfaction
- Investigating the effect of fame and reputation on job satisfaction
- Investigating the effect of work-life balance on job satisfaction
- Investigating the effect of social responsibility on job satisfaction
- Investigating the effect of organizational culture on job satisfaction
- Investigating the effect of diversity on job satisfaction

## 2.5 Related review of literature

Table 1. Related review of literature inside and outside the country

No.	Year	Researcher	Title	Results
1	2015	Morakabati	Investigating the Effect of Employer Brand on Employees' Attitudes in Insurance Industry: A Case Study of Central Office of Alborz Insurance	There is a positive relationship between employer brand value propositions and employees' attitudes
2	2015	Barghanmadi & Gholipour	Investigating the Effect of Employer Branding on Attracting Talented Ones in Refah Bank	Five internal factors of employer brand and one different factor have been effective on attracting talented ones in the case of giving information and informing them. Also, external factors have been effective on attracting talented ones in Refah Bank.
3	2013	Sanavifard	Investigating the Effect of Employer Brand on Employees' Performance	Employer brand leads to high performance of employees and eventually competitive advantage.
4	2012	Rabiei	Investigating the Effect of Employer Brand Value Propositions on Domestic Marketing of Asia Insurance Co. in	Among employer brand value propositions, social value and reputation have respectively the greatest impact on the company's domestic marketing and development, economic and diversity values are the next priorities.

			Tehran	
5	2016	Prasad	The Effect of Employer Brand Dimensions on Job Satisfaction: Gender as a Moderator	Training and development, diversity, reputation, organizational culture, ethics, social responsibility and work-life balance are effective on job satisfaction. These components are all important dimensions of employer brand.
6	2011	Longhi	Impact of Cultural Diversity on Wages and Job Satisfaction	There is a positive relationship between cultural diversity and wages. Also, cultural diversity improves job satisfaction among employees.
7	2008	Thacker & Holl	Behaviorally-Based Management Training: Linking Behaviors to Employee Satisfaction	There is a significant and positive relationship between job satisfaction and quality of supervision by the company/organization as an employer
8	2008	Coldwell, et al.	The Effects of Person–Organization Ethical Fit on Employee Attraction and Retention: Towards a Testable Explanatory Model	The dimension of person–organization ethical fit can explain behavior of those who consider corporate social performance consistent with their own ethical expectations and are attracted by them and tend to remain with a company.

**3. Method of the research**

From the aim perspective, this study is an applied research and from data collection perspective, it is a descriptive survey research. The research population consisted of 200 employees of Dana insurance branches in Tehran. The sample size was estimated 131 employees using Cochran formula. Random sampling was used in the present research. Data were collected through Prasad Questionnaire (2016) with 39 questions. 5-point Likert scale (ranging from strongly agree to strongly disagree) was used for measurement. Cronbach’s alpha (0.91) represents high reliability of the questionnaire. Its validity was approved by opinions of experts and university professors.

**3.1 Hypotheses and research model**

**The main hypothesis**

Employer brand has an effect on job satisfaction.

**Subsidiary hypotheses**

- Training and development has an effect on job satisfaction
- Fame and reputation has an effect on job satisfaction
- Work-life balance has an effect on job satisfaction
- Social responsibility has an effect on job satisfaction
- Organizational culture has an effect on job satisfaction
- Diversity has an effect on job satisfaction

**3.2 The research model**



Figure 1. The conceptual model of the research

**4 .Data analysis**

**4.1 Evaluation of demographic characteristics**

Table 2. Results obtained from demographic statistics

Demographic variables		Frequency percentage
Work experience	5 years and less	19%
	5-10	26.71%
	10-15	38.16%
	15 years and over	17.55%
Education	Diploma and lower	0%
	Associate and Bachelor’s degree	67%
	Master’s degree and higher	33%
Age	20-30	25%
	31-40	40%
	Over 41	35%
Gender	Female	41.5 %
	Male	58.5%

#### 4.2 Investigating the reliability status

Table 3. Reliability status

Variable	Cronbach's alpha	Reliability status
Training and development	0.89	High reliability
Fame and reputation	0.89	High reliability
Diversity	0.9	High reliability
Organizational culture	0.91	High reliability
Work-life balance	0.92	High reliability
Social responsibility	0.9	High reliability
Job satisfaction	0.89	High reliability
Total	0.91	High reliability

#### 4.3 Investigating the status of data distribution

Table 4. Result obtained from Kolmogorov-Smirnov test for each component

Variable/index	Number	Mean	Test statistic	Sig	Test result
Job satisfaction	131	3.33	0.095	0.055	normal
Training and development	131	3.13	0.089	0.386	normal
Fame and reputation	131	3.39	0.103	0.234	normal
Work-life balance	131	2.9	0.095	0.365	normal
Social responsibility	131	3.15	0.126	0.055	normal
Organizational cultural	131	3.3	0.11	0.081	normal
Diversity	131	2.82	0.13	0.096	normal

#### 4.4 Investigating correlation among variables

Table 5. The correlation matrix

Variable	1	2	3	4	5	6	7
Training and development	1	0.786	0.652	0.603	0.553	0.905	0.739
Fame and reputation		1	0.617	0.511	0.42	0.81	0.941
Diversity			1	0.525	0.636	0.592	0.695
Organizational culture				1	0.441	0.487	0.499
Work-life balance					1	0.379	0.476
Social responsibility						1	0.713
Job satisfaction							1

#### 4.5 Answer to the research hypotheses

**The main hypothesis:** According to table 6, the correlation coefficient between employer brand and job satisfaction is (0.689) showing that there is a relatively good correlation between these two variables. According to table 7, since the

significance level (0.000) is less than 5%, the hypothesis of linear relationship between these two variables is accepted. According to table 8, since the significance level (0.000) is less than 5%, employer brand has significant effect on job satisfaction.

Table 6. A summary of research model

Model	R	Coefficient of determination	Adjusted coefficient of determination	Standard error of the estimate
1	0.83	0.689	0.686	0.299

Table 7. Results obtained from regression analysis of variance

Model	Sum of squares	Degree of freedom	Mean square	F	Sig	
1	regression	25.642	1	25.64	285.658	0.000
	remaining	11.58	129	0.09		
	total	37.22	130			

Table 8. The impact factor of independent variable

Model	Non-standard impact factor		Standard impact factor	t	sig	
	B	Standard error	Beta			
1	constant	0.338	0.176		2.203	0.029
	Employer brand	0.944	0.056	0.83	16.901	0.000

Dependent variable: Job satisfaction

**Subsidiary hypotheses:** According to table 9, the correlation coefficient among variables is (0.921) in the third model

showing that there is a strong correlation between dependent and independent variables of the research. According to table 10,

since the significance level (0.000) is less than 5%, the hypothesis of linear relationship between dependent and independent variables is accepted. As shown in table 11, beta coefficients of fame, diversity and social responsibility are significant in error level less than 0.05; therefore, they are

effective on job satisfaction. Table 12 shows excluded variables (variables of training and development, work-life balance and organizational culture) which have been removed from the equation due to small amount of beta.

Table 9. A summary of research model

Model	R	Coefficient of determination	Adjusted coefficient of determination	Standard error of the estimate	d-statistic
1	0.941	0.886	0.885	0.18	
2	0.953	0.907	0.906	0.16	
3	0.959	0.921	0.919	0.15	2.1

Table 10. Results obtained from regression analysis of variance

Model		Sum of squares	Degree of freedom	Mean square	F	Sig
1	regression	32.993	1	32.993	1006.254	0.000
	remaining	4.23	129	0.033		
	total	37.222	130			
2	regression	33.773	2	16.886	626.610	0.000
	remaining	3.449	128	0.027		
	total	37.222	130			
3	regression	34.265	3	11.422	490.574	0.000
	remaining	2.957	127	0.023		
	total	37.222	130			

Table 11. The impact factor of dependent variable

Model		Non-standard impact factor		Standard impact factor	t	sig
		B	Standard error	Beta		
1	constant	0.156	0.101		1.537	0.127
	Fame	0.936	0.03	0.941	31.722	0.000
2	constant	0.114	0.092		1.23	0.221
	Fame	0.823	0.034	0.828	24.206	0.000
3	Diversity	0.151	0.028	0.184	5.38	0.000
	constant	0.14	0.086		1.627	0.106
	Fame	0.966	0.044	0.927	21.794	0.000
	Diversity	0.175	0.027	0.214	6.588	0.000
	Social responsibility	0.174	0.04	0.2	4.6	0.000

Dependent variable: Job satisfaction

Table 12. Excluded variables in third model

Model	Variable	Beta In	t	sig
3	Training and development	0.123	1.979	0.05
	Work-life balance	0.012	0.379	0.705
	Organizational culture	-0.018	-0.579	0.564

## 5. Conclusion

The effect of employer brand on job satisfaction was approved; therefore, it is suggested that managers strengthen components of employer brand to achieve job satisfaction.

The effect of fame and reputation on job satisfaction was approved; therefore, it is suggested that managers make an attempt to improve their own reputation and credibility. For this purpose, it may be appropriate to offer programs in accordance with the clients' and employees' rights, observe standards, respect opinions and needs of customers, be honest and keep promises, be clear at presenting services, make use of new services and apply fair prices.

The effect of social responsibility on job satisfaction was approved; therefore, it is suggested that company's managers carry out their responsibilities towards the environment and consider and implement some programs to help charities and of course, they can notify these programs in their advertising and marketing programs. It is suggested to monitor an accountability system to customer complaints as well as a private monitoring system can be designed and implemented for workplace crimes. They are obliged to respect all laws and regulations in workplace.

The effect of diversity on job satisfaction was approved; therefore, it is suggested that human resource managers accept employees based on their abilities and skills and ignore their gender and culture as negative categories in terms of

employment and admission. This issue is very important, especially in Iran; since there are different ethnics over the country, culturally, there is much cultural diversity. Also, the category of religion can be highly regarded. Regarding cultural diversity among employees, it can be very important to respect individuals' beliefs and pay attention to their merits. Another fundamental category is gender. Since this research has been conducted on an insurance company which presenting servicing activities and servicing spaces do not usually need men's physical power, it is expected that gender equality in recruitment and individuals' selection be observed.

## 6. Discussion & Analysis

The effect of training and development on job satisfaction was rejected. It could be caused by presenting inappropriate training against employees' needs which are not consistent with organizational culture, employees' current level of knowledge and skill and etc. It is proposed to conduct training needs assessment before holding training courses in order to prevent wasting organizational limited resources in addition to ensure the effectiveness of training courses.

The effect of organizational culture on job satisfaction was rejected. It could be caused by the lack of opportunity and condition for employees' participation, the low level of experience and specific knowledge, and lack of attention to employees' comments and suggestions by managers and administrators. If employees give their opinions but they are ignored in practice, and employees experience it over and over, they will be discouraged and will give no opinion or solution despite the suggestions and criticisms system. Hence, it is suggested that managers take advantage of means such as transformational leadership style, employees' training and most importantly the proper incentive system to create an appropriate atmosphere for participatory culture.

The effect of work-life balance on job satisfaction was rejected. It could be caused by more basic expectations of employees for welfare program. Also, when employees are dissatisfied with more important issues, it seems that implementation of welfare programs will have no significant effect on job satisfaction. According to Maslow's hierarchy needs, if basic needs are neglected, meeting other needs cannot have much impact on job satisfaction; therefore, it is suggested that human resource managers pay attention to this category and implement programs related to work-life balance.

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## FORMULATION OF EXPORT STRATEGY OF CHEMIDAROU PHARMACEUTICAL PRODUCTS TO AFGANISTAN BASED ON DAVID'S MODEL

<sup>a</sup>AMIN LASHGARI, <sup>b</sup>JAMSHID EDALATIAN SHAHRIARI,  
<sup>c</sup>Hanieh Lashgari

<sup>a</sup>Graduated from the department of Business Management (PhD) of Science, Central Branch, University of Tehran, Tehran, Iran.

<sup>b</sup>Faculty member, Assistant professor, Central Branch, Islamic Azad University, Tehran, Iran.

<sup>c</sup>Graduated from the department of Business Management (PhD) of Science, Central Branch, University of Tehran, Tehran, Iran.

Email: <sup>a</sup>amin.lashgari@gmail.com,

<sup>b</sup>Jam.Edalatian\_shahriari@iauctb.ac.ir, <sup>c</sup>Hlashgari@ut.ac.ir

Abstract. Afghanistan drug market is considered a potential market due to the absence of modern pharmaceutical manufacturers. The support lent by the Afghan government to the foreign investment, Iran's support for non-oil exports and abundance of favorable capabilities in Chemidarou Co. to enter export markets necessitate development of a written plan. The major goal of this research is identification, comparison and decision-making regarding proper exportation strategies for entrance into Afghanistan market to export Chemidarou pharmaceutical products. The theoretical framework is the strategic planning model of Fred R. David. The research territory included Chemidarou Co. and Afghanistan and the research time slot from which the information was collected was from 2007 to 2010.

Keywords: Strategy, Export, Drug, Competition, Opportunities and Foreign Threats, Domestic Strengths and weaknesses, Government, Strategists, Holding, Cartel

### 1. Introduction

Export is the least risky way to enter global markets. Sales through export need the least allocation of facilities and impose the lowest possible changes in the internal programs of companies. This process is carried out directly or indirectly. Lack of favorable strategy and lack of proper methods to enter the market have led to reduction in market shares of Iranian products. Although there are favorable capacities in drug manufacturing in Iran, lack of an effective export strategy will result in losing opportunities available on the neighboring countries markets, especially Afghanistan (Clarke, 2007). Expanding geographic scope of activities, diversifying the activities, acquiring other companies, producing and selling products, penetrating into market, reducing the costs, selling a share of assets, delegating a large part of authority, and arranging for private partnership are among strategies the company can adopt. (Abzari and Alisafari, 2004; Mohammad Mehdi, 2001)

With more than four decades of experience in drug manufacturing and favorable experience in exporting drugs to Afghanistan, Chemidarou Publicly Traded Company needs proper strategy to export its pharmaceutical products. (Alvani, 1997). A sound strategy helps it promote its strengths and reduce its weaknesses in order to make use of opportunities available on the market and get through looming threats; thereafter, the company's share of market will increase and its position will be stabilized. Finally, a favorable mental image of its products will be left on the market (Stringer, 2002).

It is noteworthy that exports to Afghanistan is not a fresh experience, but lack of a proper strategy has led to a reduction in the market share and a slide in the monetary value of exports (Rezaeeian, 1992). To address the issue, the researcher chooses the lack of export strategy as the research problem in order to identify strengths, weaknesses, opportunities and threats to develop a strategy for exports (Zahedi et al., 2000).

Application of a strategy for drug export to the neighboring countries, particularly Afghanistan, seems necessary more than any other times due to their potential markets (Robbins and Judge, 2007). One requirement to enter Afghanistan market is formulating a strategy for export, which contributes to the

powerful presence on that market and also successful competition with foreign and domestic actors (Reymon Brus, 2000). In summary, it is an applied, exploratory field study. Theoretical framework of this research is the strategic management and planning model of Fred R. David. (Armstrang, 2005).

First phase: Entrance phase

First, strengths and weaknesses of the company and opportunities and threats the company would encounter on the Afghan market were discussed at the brainstorming session with the company's 21 middle managers in attendance (Lorndge et al., 2005). The session helped the participators identify strengths and weaknesses and opportunities and threats. A questionnaire to evaluate internal and external factors was distributed among the managers and the questionnaire results were analyzed (Terri, 2002)

Second phase: Comparison phase

A comparison was made by the organizations between skills, internal resources, opportunities and risks. In this phase, using SWOT matrix, all feasible strategies were identified. Thereafter, strategic position and action evaluation (SPACE) matrix was used to specify whether the organization's strategy should be aggressive, conservative, defensive or competitive (James et al., 2003). Then, using grand strategy matrix, the status of the organization was examined to determine what squares of the matrix the organization should be positioned on, and feasible strategies were announced. (Robert, 2005; Walker, 2007).

Third phase: Decision making phase

In this phase, i.e. decision-making, quantitative strategic planning matrix (QSPM) is used to objectively specify different strategies which are the best among their counterparts. (Marshall and Gerchen, 2002)

### 2. Main topics

Using Fred R. David model, the strategy of Chemidarou for exporting pharmaceutical products to Afghanistan was devised as described below:

#### 1.2 Internal Factor Evaluation Matrix (IFE)

Analyzing Chemidarou weaknesses and strengths, we obtained 9 strengths and 5 weaknesses after the brainstorming sessions and seeking guidance from advisors and supervisors. Then, internal and external factor evaluation questionnaire was completed by the statistical population. The final score of the company's strengths and weaknesses was 22.3. It means the company is above average regarding internal factors, so its strengths outweigh weaknesses. (Andrews, 1989)

The most important identified strengths are as follows:

- Product competitiveness on the domestic market, being ranked second in the number of items sold, standing tenth in rial value of the sold items, winning the title of Tehran Province exemplary exporter.
- Production of new products and putting them onto the market annually.
- Developing and building new factory with international standards and obtaining related licenses.

The most important identified weaknesses are as follows:

- Shortage of professional staff skilled at international drug marketing

- Lack of liquidity regarding outstanding claims from distributing companies

## 2.2 External Factor Evaluation Matrix (EFE)

Brainstorming sessions and guidance seeking from advisors and supervisors resulted in identification of 9 opportunities and 5 threats on the Afghan market. After the questionnaire was completed, the final score related to the company's opportunities and threats totaled 2.98. It means the company can react favorably if it faces factors which pose threat or opportunity. In other words, the company makes use of available opportunities favorably and minimizes the effect of threat-creating factors to the lowest possible level (James et al., 2006).

The most important opportunities

- Advanced structure of Iran's pharmaceutical industry compared with Afghanistan
- Development of political and economic cooperation, conclusion of multiple memorandum of understandings and agreements between Iran and Afghanistan
- Having competitors who practice different religions and their remote distance to Afghanistan

Practicing same religion, having historic, cultural and linguistic commonality, and, as a result, existence of positive view over Iranian pharmaceutical products.

The most important threats

- Insecurity, riots and terrorism
- Activities of domestic and foreign competitors in Afghanistan

## 2.3 Threat, Opportunities, Weaknesses and Strengths matrix (SWOT)

Table 1 Threats, opportunities, weaknesses and strengths matrix (SWOT)

	<p>Strengths (S)</p> <ol style="list-style-type: none"> <li>1- Professional individuals among managers of the company, using incentive and deterrent systems, and, as a result, obtaining an acceptable ranking in the Award for Human Resource Empowerment</li> <li>2- Product competitiveness on the domestic market, being ranked second in the number of items sold, standing tenth in rial value of the sold items, winning the title of Tehran Province exemplary exporter.</li> <li>3- Effective budgeting and planning and, as a result, supplying products to the distributors based on the market needs</li> <li>4- Favorable profitability of pharmaceutical products</li> <li>5- The possibility of increasing production capacity based on the available resources and production in accordance with national standards and obtaining ISO quality management standards</li> <li>6- Favorable experience in Afghanistan and Iraq and exporting products based on the customers' needs</li> <li>7- Manufacturing new products and putting them onto the market on a yearly basis</li> <li>8- Developing and building a new factory according to international standards and receiving related licenses</li> <li>9- Applying IMS to promote efficiency and using paperless systems in official correspondences</li> </ol>	<p>Weaknesses (W)</p> <ol style="list-style-type: none"> <li>1- Low experience on international market</li> <li>2- Shortage of professional staff skilled at international drug marketing</li> <li>3- Lack of liquidity regarding outstanding claims from distributing companies</li> <li>4- Lack of GMP confirmation from the international organization despite receiving confirmation of its country Ministry of Health</li> <li>5- Disability to manufacture products as the first producer</li> </ol>
<p>Opportunities (O)</p> <ol style="list-style-type: none"> <li>1- Development of political and economic cooperation, conclusion of multiple memorandum of understandings and agreements between Iran and Afghanistan</li> <li>2- Practicing same religion, having historic, cultural and linguistic commonality, and, as a result, existence of positive view over Iranian pharmaceutical products</li> <li>3- Active participation of Iranian drug manufacturers in Afghanistan and receiving increasingly positive feedback</li> <li>4- Laws which support non-oil export from Iran</li> <li>5- Protective policies for absorbing investment and insuring pharmaceutical products in Afghanistan</li> <li>6- Advanced structure of Iran's pharmaceutical industry compared with Afghanistan</li> <li>7- Having competitors who practice different religions and their remote distance to Afghanistan</li> </ol>	<p>SO strategies</p> <ol style="list-style-type: none"> <li>1- Participation in building drug manufacturing factories (S1,6,8 / O1,3,5,6)</li> <li>2- Building drug manufacturing factories (S1,6,8 / O3,5,6)</li> <li>3- Direct exports through delegation (S1,2,3,6 / O1,2,3,4)</li> <li>4- Formation of an exportation holding from Iranian companies in Afghanistan market (S1,2,3,6,9 / O1,2,3,4,7)</li> </ol>	<p>Strategy WO</p> <ol style="list-style-type: none"> <li>1- Trilateral participation for manufacturing products with high technology (FDO confirmation holding company with an Afghan firm) (W1,3,4,5 / O1,2,5)</li> <li>2- Using skilled advisors/advising companies which are experienced in international marketing of pharmaceutical products (W1,2,3 / O2,3,4,6)</li> </ol>
<p>Threats (T)</p> <ol style="list-style-type: none"> <li>1- Lack of proper IT system in Afghanistan and, as a result, lack of modern distributing systems and databases</li> <li>2- Shortage of specialized doctors and advanced pharmacies</li> <li>3- Shortage of professional staff, low efficiency and, as a result, increase in unemployment rate, and rise in inflation</li> <li>4- Culturally underdeveloped, resolving problems through tribal procedures</li> <li>5- Insecurity, riots and terrorism</li> <li>6- Presence of domestic and foreign competitors on the Afghan market</li> </ol>	<p>ST strategies</p> <ol style="list-style-type: none"> <li>1- Branding in the Afghan market (S2,5,7 / T6)</li> <li>2- Training professional manpower skilled at drug distribution and providing them with franchise (S1,6,9 / T1,3,6)</li> </ol>	<p>WT strategy</p> <ol style="list-style-type: none"> <li>1- Insuring the products regarding Afghanistan political situation (W1,3 / T4,5)</li> <li>2- Making use of Islamic Republic of Iran political influence over influential Afghan agents who can support drug exports (W1,2,4 / T1,3,5,6)</li> <li>3- Cash sales with minimum risk (W3 / T1,4,5)</li> <li>4- Taking part at trade fairs and cash sales (W1,2,3 / T1,5,6)</li> </ol>

## 2.4 Strategic position and action evaluation (SPACE) matrix

This four cell matrix determines whether the type of applicable strategy is aggressive, conservative, defensive or competitive. A total of 21 questionnaires were filled out by the senior manager, members of the board and middle managers. The average scores were calculated as described on the table 1 presented in the appendices. According to the annexed diagram, the company falls on the aggressive cell, indicating that it is a financially sound firm and operating in a sustainably growing industry with competitive advantages.

## 2.5 Grand strategy matrix

Any organization falls on one cell of the grand strategy matrix, regardless of its industrial position. The position of organizations can be determined based on their competitiveness and market growth. Results obtained from the questionnaire filled by the statistical population indicates that the organization falls on the first cell of the matrix. It is indicative of its excellent position as described below.

Current markets (market penetration and development)  
Products (product development)

A company which holds such position will find it unreasonable to lose such status (having a strong competitive advantage). The companies falling on the first cell and having large resources should use backward integration, forward integration and horizontal integration strategies. Homogeneous variety can reduce the risks of a unique product when a company commits itself to producing and distributing a distinctive item.

## 2.6 Quantitative strategic planning matrix

The quantitative strategic planning matrix is used as an analytic framework. Relative attractiveness of strategies is determined by using the quantitative strategic planning matrix. Regarding the obtained results from SPACE matrix, which evaluated the organization position as aggressive, strategies resulting from SO were sent to 21 managers through questionnaires and, after they were filled up, the results were calculated. According to the results, the first applicable strategy is "formation of a holding from Iranian companies for Afghanistan market".

## 2. Conclusion

Aggressive strategies are appropriate for the company regarding the result obtained from the SPACE matrix. Four SO strategies from the SWOT matrix were tested. These 4 strategies are listed below in order of priority.

- 1-Formation of a holding from Iranian companies for Afghanistan market
- 2-Participation in building drug-manufacturing factories in Afghanistan
- 3-Direct exports to Afghanistan through agents
- 4-Building drug-manufacturing factories in Afghanistan

In summary, we describe the issues related to the above mentioned strategies.

### 3.1 Strategy of formation of an exportation holding from Iranian companies on Afghanistan market

To effectively implement the holding, the following recommendations are made:

General approaches must be in line with promoting the country's capabilities to use potential and actual opportunities available on the free market.

In line with high level documents (20-Year Vision Plan and the Fourth National Development Plan), the principle of government

downsizing and reduction in government involvement should be taken into consideration. To that end, government involvement should have a descending trend (Boroujerdi, 1991).

Infrastructures and privatization capabilities including capital markets, laws for private sector activities, corresponding political factors, etc. must be promoted.

Professionalizing the management to maintain organizations' dynamic and sustainable equilibrium on free market environment.

In line with maintaining a trade-off between structure effectiveness and strategy, the structure of holdings should be examined. Some structures should be designed to help the organizations become well responsive to environmental complexity. (IRICA, 2007)

Meritocracy and professionalism in assigning managers and avoiding political devastating influence should be institutionalized as the major principle.

### 3.2 Strategy of participation in building pharmaceutical factories in Afghanistan

The foreign investor might obtain its required capital independently (independent investment) or carry out its economic activities through joint investment. Legally, foreign independent investors are the subsidiaries which have 100% foreign ownership (Strategic management of Human resource, 2006). Subsidiaries are headquartered in the host nation but their entire stocks or the majority of them are owned by the foreign company. In joint foreign investment, investment costs and the obtained benefits are distributed among domestic and foreign investors. Nowadays, the majority of developing countries prefer this kind of investment for its benefits (erest, 2002).

### 3.3 Strategy of direct exports through agents

By the time a company has extra capacity in the factory located in the parent country, it can probably operate effectively on limited market. Since the production fixed costs are covered by domestic sales, foreign sales costs can be determined based on the variable costs instead of total costs. When foreign sales outweigh domestic sales, or the production reached the maximum capacity of the factory, this pricing strategy is ignored. (Suzan et al., 2003)

One advantage of this strategy is that companies can receive better indication of foreign sales before engaging their resources for production in other countries (Matching research, 2003).

The other advantage is that companies become familiar to the operating environment of the other country before investing abroad

### 3.4 Strategy of building pharmaceutical factories in Afghanistan

To make direct investment, control should accompany investment; otherwise, it is defined as "investment through securities". Regarding the direct investment, companies should perform in such a way that the government does not dictate whom they must hire, what they must sell (or at what price they must sell), and how they must distribute incomes (Hunger and Wheelen, 2007).

The control over the company will be handed over to the government if all conditions are not included. For investors, the control is an important issue, since they do not feel like handing over all their critical resources to a domestic or foreign organization which can make all operating decisions independently and freely. (Fred, 2007)

If new inventions, trademark and management knowledge are handed over to these companies, they might be misused to degrade the competitive position of the original holder. Next to that, operating costs will reduce, if "control" exist, in addition to the following cases:

1. The parent company and the subsidiary have the same organizational culture.
2. The company can hire internal managers who understand its goals.
3. The company can avoid lengthy negotiations with other companies.

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## THE IMPACT OF MANAGEMENT'S COMMITMENT IN INTERNAL MARKETING ON WORKING ATTITUDE OF STAFF IN THE IRANIAN CENTRAL OIL COMPANY IN TEHRAN WITH REGARD TO THE ROLE OF INTERNAL COMMUNICATION (FORMAL AND INFORMAL)

<sup>a</sup>HOMA DOROUDI, <sup>b</sup>FATEMEH SAFAR POUR SANDANI

<sup>a</sup> Assistant Professor, Business Administration, Faculty of Humanities and Social Sciences, Islamic Azad University, Zanjan Branch

<sup>b</sup> MA Student, Business Administration, Faculty of Humanities and Social Sciences, Islamic Azad University, Zanjan Branch

Email: <sup>a</sup>homa.dor.oud@yahoo.com,

<sup>b</sup>fateme.safar.pour.20s@gmail.com

**Abstract.** This research, is an applied research in terms of purpose, and is cross-sectional study in terms of descriptive-analytic method with survey approach, and is causal. Reliability of tools has been approved as (0, 96) by Cronbach's alpha and the validity was approved first ostensibly and then was 0, 72 based on KMO factor analysis. The spss software is used in descriptive statistical analysis and to test the hypotheses from structural equation modeling LISREL software is used in which results show that management commitment in internal marketing has positive effect on understood working attitudes of employees. Considering the results of the study, with increased management commitment in internal marketing of Iranian Central Oil Fields Company the internal communications of official staff of this company will strengthen.

**Keywords:** perception of management commitment - internal marketing - formal internal communication - attitude to work

### 1. Introduction:

In order to create a positive working attitude among staff, service delivery managers must be committed to employees. Result of management commitment in organizations is that to provide benefits for employees that employees willingly try to achieve organizational goals. Nowadays internal marketing is an integral part of management science and how its enforcement has undeniable impact on the profitability of companies. On the other hand, one of the assets of any organization is its employees and satisfied and empowered employees is one of the necessary conditions for progress of each organization (Eric et al. 2016).

So any manager and organization should do set of actions to create a positive attitude among staff. Nowadays internal marketing is known as a strategy for the implementation of organization programs. Studies in this area suggests that internal marketing activities improves competitiveness and enhances competences through influence and motivating employees (Dehghan and Fathi, 2013).

Internal marketing can be considered as a source of competitive advantage. By which managers can prepare and provide a context for performance improvement due to underlying factors in creating a positive attitude to work among their employees. A person can have thousands of attitudes, but in organizational behavior attention is paid on a limited number of attitudes about the job, which include: Job satisfaction, professional affiliations, organizational commitment (Abzari et al. 2010).

In organizations where employees have less positive attitudes toward their jobs there is higher absenteeism, lower job satisfaction and higher displacement. Internal marketing, can cause changes in employee attitudes and consequently, staff eagerly provide high quality service (Cooper and Cronin, 2011).

The important issue that is emphasized more in internal marketing is organization communications. Managers are always in idea of finding ways to communicate efficiently with their employees in order to maintain optimal efficiency and supply goals (Amini and MirDamadi, 2008). A senior executive or manager must understand that success of the organization in maintaining its goals, depends on effective communications network. If CEO know himself committed to communication with words and deeds, the rest of the organization will also obey

him. Successful and leading companies consider relationship with employees as important and crucial process of management. Management commitment in organization and attention to the communication topic, whether it is formal or informal, can play a crucial role in promoting working industry attitudes (Shafiqabadi, 2010).

There is types of communication methods that are done over a wide area and in official environments. Social communication and a communication that is established in organizations and administrative educational system for communicating regulations and rules with subordinates. Official relations means conscious network structure of roles in an organization or among several organizations which officially organized and determined. Formal communication is scheduled structure of roles, which is formally organized. In other words, formal communication, is a system or network of communication and disposal that connects together individuals and groups doing important tasks (Qadikalayi et al. 2013, Cascio et al. 2010, Robbins, 2014).

In organizational charts, can show formal structure of the organization and who is responsible for what type of work or activity. Also organizational chart can determine institutional weaknesses, such as additional work or potential conflicts. But the organizational chart makes some features of organizational structure remain hidden from sight (Rostami, 2016). From one perspective, organizational charts suggests that people at the same level, has the same or equal authority and responsibility; While this situation not always is true; Organization Chart cannot cause problem in relationships between individuals (non-official organization), or be stumbling block (Kim, 2012).

Zarei (2007) did a research with the title of "impact of management commitment to internal marketing on the attitude of employees in three star hotels in Esfahan city". The aim of this study was to examine the management commitment to the attitude of staff with mediating variable of internal marketing (official and non-official internal communications). Results of this research is that confirmed internal marketing practices, including formal and informal communication, the only exception was direct relationship between the official communication and attitude and this relationship was moderated by informal communications, therefore hotel managers effectively used informal channels of communications (Shermer et al. 2006).

Eric et al. (2016) studied the effect of trust and commitment on the internal marketing. Their goal was to evaluate the effect of trust and commitment on internal marketing in the hospital industry. The results showed that commitment and trust in 5 main job training, motivation, cooperation, communication and internal company targets has an important role in internal marketing.

Luo et al. (2012) mentioned to assess employee attitudes in their study titled "the effect of management commitment in internal marketing on working behavior of employees". The aim of this study was to evaluate the effect of internal marketing methods (communication, both informally and formally) on working attitudes of employees. The results of this study show that informal communications prior to formal communication and covers it and management can have an impact on employees' attitudes through more efficient and effective informal communications.

Kaplan and David (2008) in an experimental study investigated the correlation between internal marketing, job satisfaction, organizational culture and organizational performance in the insurance industry in Taiwan. The aim of this study was to evaluate the effect of internal marketing factors (remuneration,

development, vision of the organization) on behavioral, financial and service performance of employees. The result is that the internal marketing will have a positive effect. Internal marketing, also, has a direct effect on organizational performance. Internal marketing indirectly and through the impact on job satisfaction also causes to increase organizational performance.

Formal and informal internal communication, has been identified as the main elements of internal marketing. Therefore, in this study we will follow up to investigate impact of management's commitment on working attitude of employees through internal marketing actions according to official internal communications of Iranian Central Oil Fields Company. Since the oil industry is one of the most important manufacturing and development industry of the country and its employees are its main asset, so positive working attitude and performance of employees has a critical role in improving the organization's performance, which can provide a competitive advantage for company. But accepting the current situation shows that positive working attitude of staff in the oil company is not high that reason for this may be the result of individual and organizational factors that in words may be one of the most important factors of senior management commitment to internal marketing discussion and commitment level of this company's authorities may not be enough to the internal marketing (Martin et al. 2013). Even in some situation the first step to do internal marketing mostly is acceptance of this act by the authorities, and if the authorities won't have commitment to it, there will be no action or effectiveness (Moghimi, 2010).

## 2. Purposes and Methodology:

In this study, management commitment in internal marketing is the independent variable, working attitude of employees is dependent variable and official internal communications is the mediator variable. The scientific goals of the study are as follows:

- Determine the effectiveness of management's commitment in internal marketing on staff working attitude
- Determine the effectiveness of management commitment in internal marketing on official internal communications
- Determine the effectiveness of official internal communications on working attitude of staff

Research hypotheses are also defined as follows:

Hypothesis 1- management commitment in internal marketing has positive and significant effect on perceived working attitude of employees.

Hypothesis 2 - management commitment in internal marketing has significant positive effect on official internal communications.

Hypothesis 3 official internal communication has positive and significant effect on perceived working attitude of employees.

Present research, in terms of purpose is among applied researches according to that it moves to the practical application of knowledge. The nature of this study is in terms of methods and research is analytical that is conducted through a survey. In the present study to collect information relating to literature through libraries, internal scientific journals, relevant Theses are used and to collect statistical information, the survey method and questionnaire are used. The tools used for data collection is questionnaire.

Table 2: The KMO value and Bartlett and significance level of research variables

variables	KMO	Bartlett	freedom degree	significance level
management commitment in internal marketing	0.723	90.998	6	0.00
official internal communications	0.823	139.969	10	0.00
Informal internal communications	0.842	123.291	10	0.00
working attitude of employees	0.727	67.601	10	0.00

## 2.1. Reliability (trust) of research tools:

There are several methods used to calculate the reliability of a questionnaire that some of them can be mentioned such as: Reimplementation methodology (retesting), split-half method (half off), parallel method test (peer), Kurd Richardson method and Cronbach's alpha and... (Sarmad et al, 2015, 169). Cronbach's alpha is the method that is used in this research.

Obviously, however Cronbach's alpha is closer to 1, internal consistency between questions is more and thus questions will be more homogeneous. In order to calculate Cronbach's alpha for 30 questionnaires were distributed and collected among workers of company headquarter sector of Iran Central Oil Fields in Tehran and the results were analyzed using version 21 of SPSS software. The following table shows the Cronbach's alpha values of the present study variables.

Table 1: Cronbach's alpha values of research variables

variables	Cronbach's alpha values
Perception of management commitment in internal marketing	0.925
official internal communications	0.936
Informal internal communications	0.944
working behavior and attitude of employees	0.832
All statements	0.961

In case of measuring devices modification (Remove items that cause increase in intended components alpha) alpha values could desire more to its previous amount.

Therefore each of questions questionnaire and internal consistency of the questions were examined but the results showed that in case of removing any of the questions, confidence coefficient will reduce thus these questions has high value and in none of the cases of removing questions will not led to an increase in confidence coefficient therefore, this indicates internal consistency of questions. Finally, with regard to the calculated confidence coefficient and other results was revealed that used questionnaire that its total alpha value equals to 0.961 has required value and reliability (consistency).

## 2.2. Validity (credit) of research tools:

The purpose of validity is that whether the measuring tools can measure features and characteristics that the tool is designed for or not? To measure the validity of present study, face validity method and construct validity were used. In this regard, after adjusting questionnaire data collection tools were given to professors (Supervisor, professors of Azad University of Tehran in the field of management) and statisticians to collect and apply through their comments. After making any necessary amendments finally questionnaire was distributed among Iran Central Oil Fields Company staff in Tehran.

- Second statistic, Bartlett's test of sphericity:

This test is used to ensure the suitability of data for factor analysis stating that correlation matrix that is placed as base factor analysis is not equal to zero.

Results and findings of table 2 shows that all variables with KMO value higher than 0.5 are significant in smaller error level than 0.01 so research variables have higher internal consistency.

**2.3. Implementation Methods:**

First administrative procedure was conducted by the Department of Education and the necessary permits were obtained. 350 questionnaires were distributed among employees by attending desired units (cost control unit, accounting, product, technical inspection, legal, contracts, engineering building and administration). 313 questionnaires of the 350 questionnaires,

were collected in full. The table below show the full questionnaire collected in every unit. It took about two weeks for data collection in which the researcher has personally completed the entire questionnaire.

**3. Analysis of the results:**

In this section, findings and results are presented as descriptive statistics and inferential statistics.

**3.1. Descriptive analysis**

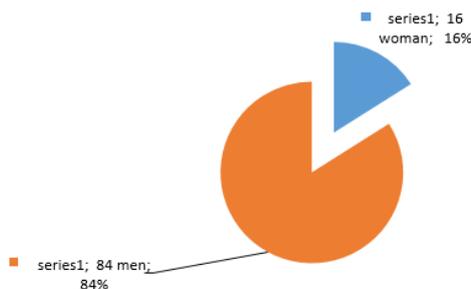


Figure 1: Distribution of respondents by gender

Table and graph 1 shows the frequency distribution of gender. According to the findings reported in this table, 16% of

respondents were female and 84 percent were male. In other words, most respondents are men.

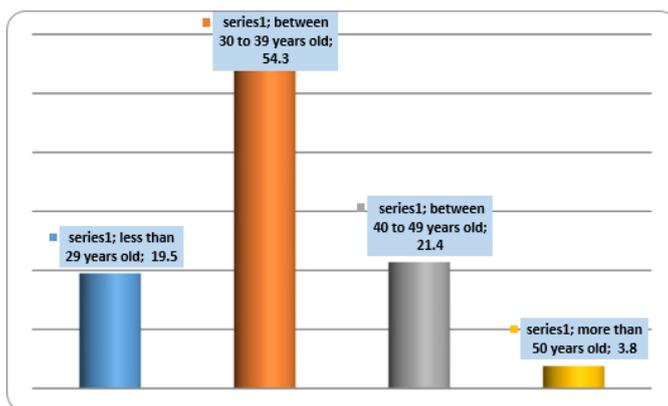


Figure 2: Distribution of respondents by age

Figure 2 shows frequency distribution of age variable among respondents. Based on the findings of this table, 19.5% Of respondents are in the age group 20 to 29 years, 54.3% between 30 and 39 years, 21.4% in the age group 40 to 49 years and 3.8

percent were in the age group above 50 years. These findings show that more than 54 percent of Iranian Central Oil Fields Company employees are in age group 30 to 40 years.

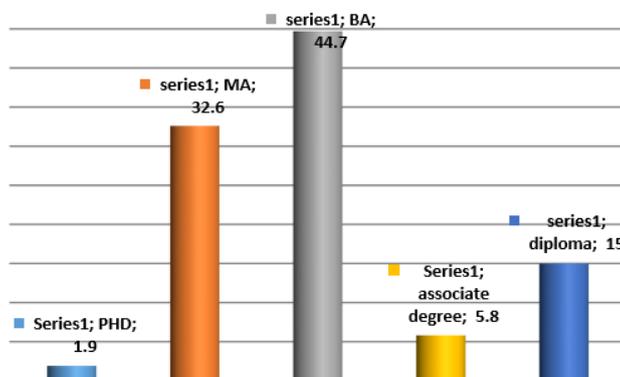


Figure 3: Distribution of respondents based on the respondents' level of education

Table and Figure 3 shows the frequency distribution of educational level of respondents in which 15% of respondents were high school graduates, 32.6% associate degree, 44.7

percent have Bachelor's degree, 32.6 percent have master degree and 1.9 percent have PhD. The results show that most of respondents have Bachelor's degree.

Table 3: partial frequency distribution of mediator factor of internal marketing practices

Internal marketing practices									
questions choice	Frequency of response					total frequency	observed average	Observed variance	observed standard deviation
	Totally disagree	disagree	No comment	agree	Totally agree				
After the official internal communications									
1	84	113	48	56	12	313	2.35	1.35	1.16
2	55	109	60	71	18	313	2.64	1.38	1.17
3	61	96	64	75	17	313	2.65	1.42	1.19
4	89	80	61	63	20	313	2.50	1.61	1.26
5	82	86	62	71	12	313	2.50	1.46	1.20
Average	89	102	75	44	3	313	2.26	1.10	1.05

Results of Table 3 shows the descriptive information related to the mediator variable of internal marketing practices in examples that in it reveals amount of people which have chosen options related to any question in questions of associated variable. In this table Question 5 to 13 of questionnaires that are associated

with this variable, has been described. As can be seen, observed average of all questions and total average of all questions of this variable (2.31) was lower than the theoretical average that is 3, this shows that the Iranian Central Oil company's internal marketing practices is low.

Table 4: Frequency distribution of the working attitude dependent variable

working attitude of employees									
questions choice	Frequency of response					total frequency	observed average	Observed variance	observed standard deviation
	Totally disagree	disagree	No comment	agree	Totally agree				
1	15	68	51	140	39	313	3.38	1.21	1.10
2	21	46	53	130	63	313	3.53	1.35	1.16
3	36	82	60	90	45	313	3.08	1.58	1.25
4	15	41	47	149	61	313	3.63	1.17	1.08
5	46	64	69	112	22	313	3	1.43	1.19
Total Average	27	57	125	101	3	313	2.99	0.89	0.94

Table 4 shows the descriptive information related to the dependent variable of working attitude of employees in the sample that in it reveals amount of people which have chosen options related to any question in questions of associated variable. In this table questions 14 to 18 of questionnaires that are associated with this variable, has been described. As can be seen, observed average of all questions and total average of all questions of this variable (2.99) is almost equal to theoretical average 3 and this results show that working attitude of the Iranian Central Oil fields Company employees is average.

In the inferential analysis normality assumption of samples is studied using the one-sample Kolmogorov-Smirnov test, then research hypotheses are tested using structural equation test.

To check and test hypotheses must first check that the parameters or nonparametric tests will be used. For this purpose, the Kolmogorov-Smirnov test is used, and if the assumption of normality hypothesis was confirmed, parametric method is used and if Normality assumption is not confirmed the nonparametric method will be used.

**3.2. Inferential analysis:**

Normality test results of the research variables can be seen in Table 5.

Table 5: normal distribution test of variables

Variable	The amount	score of Kolmogorov - Smirnov Z statistic	p-value	Decision making	Test result
Internal marketing management commitment	313	0.542	0.231	Accepting the null hypothesis	A normal distribution
official internal communications	313	0.731	0.354	Accepting the null hypothesis	A normal distribution
Employees attitude to work	313	0.863	0.278	Accepting the null hypothesis	A normal distribution

According to the p-value amounts obtained in the above table, which all are greater than 0.05, the null hypothesis meaning the assumption of samples normality distribution is confirmed at the level of 5 percent. Meaning there is no significant difference between the distribution of samples with normal distribution. Thus, according to the normality of the studied samples, parametric methods will be used to test the research hypotheses. Then, to test the hypothesis of path analysis and structural equation method (SEM) will be used.

**3.2.1. Factor analysis related to perceived management commitment variable in internal marketing**

Perceived management commitment model in internal marketing is measured using 4 indicators (items). As can be seen in Table 6 the items include (t1-t4). Standardized parameter estimates show that all indices are statistically significant (p <0.05), and their factor loads are at a high level (more than 5.0). Also fitness indicators results reviews show proper fitness of model and all fitness indicators are placed in the reception area.

So this perceived management commitment measuring model in internal marketing is accepted without any changes.

Table 6: Verified statements of perceived management commitment in internal marketing

Row	Main item	item tag	factor load	Significance level	item status
1	In our company senior management pay attention to satisfy their employees as much attention to customer satisfaction	t1	0.85	0.00	Confirmed
2	In our company senior management acts all promises that gives in line with employees activity	t2	0.81	0.00	Confirmed
3	In our company senior management has understood all effecting factors on employee job satisfaction (salary, management style, work environment, etc.)	t3	0.88	0.00	Confirmed
4	In our company senior management considers staff as the most important valuable human capital	t4	0.89	0.00	Confirmed

**3.2.2. Model fitting indicators**

After outlining the model basic ensure of accuracy and significance of information, the most important topic is significance of model by indicators that commonly are called

Goodness of Fit Index. Often to validate models, using three to five indicators seem to be enough that in this study criteria mentioned below are also used to evaluate the goodness of fit of all models and the number of each of these parameters CFI, RMSEA, AGFI, GFI are listed in tables separatel.

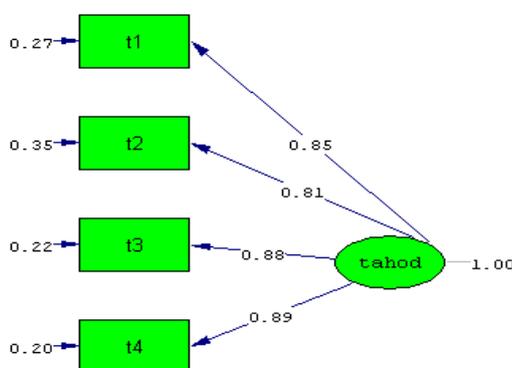


Figure 4: The factor analysis of perceived management commitment in internal marketing

First judgment criterion of model fitting in figure 4, is the freedom degree on the chi-square  $df / 2x$  which is used for one-dimensional structures and its value should be less than 3. Value of this indicators for the present model is  $(df/2x = 2,71)$  also  $RMSEA = 0,89$  that this amount is less than 0.1. Also other

important fitting indicators respectively are given below in the table. As seen in the table below, almost all indices have sufficient statistical, so with high reliability can be realized that researcher achieved a perfect fitting about this indicator.

Table 7: Selection of the important graphical model fitting indicators

Index	Index name	Brevity	Equivalent to English	amount	Acceptable fit
Absolute fitting indicators	Covered surface	-	Chi-square	2.71	Greater than 5%
	Goodness of fit index	GFI	Goodness of Fit Index	0.93	GFI > 90%
Comparative fitting indicators	Adjusted Goodness of Fit Index	AGFI	Adjusted Goodness of Fit Index	0.90	AGFI > 90%
	Comparative fit index	CFI	Comparativ Fit Index	0.94	CFI > 90%
thrifty fitting indicators	Root Mean Square Residual	RMSEA	Root Mean Square Residual	0.089	RMSEA < 1%

**3.2.3. Factor analysis related to internal marketing practices variable (formal internal communications)**

Internal marketing practices model is measured using nine indicator (items). As can be seen in Table 8 the items include (ras1-g.ras4). Standardized parameter estimates show that all

indices are statistically significant ( $p < 0/05$ ) and their factor loads are at high level (more than 0.5). Also fitting indicators results reviews show goodness of fit model and all fitting indicators are placed in the reception area. Therefore, internal marketing practices measuring model is accepted without any changes.

Table 8: internal marketing practices confirmed items

Dimension	Main item	item tag	factor load	Significance level	item status
official internal communications	In our company regular assessments, on issues of staff becomes clear that the demands of the employees involved	Ras1	0.83	0.00	Confirmed
	In our company managers communicate formally and indirectly with their staff to understand what factors lead to more satisfy employees	Ras2	0.87	0.00	Confirmed

	In our company managers met with the employees to understand expectations of their employees	Ras3	0.89	0.00	Confirmed
	In our company survey from employee is carried out at least once a year to evaluate the quality of communication	Ras4	0.85	0.00	Confirmed
	In our company survey from employee is carried out at least once a year to investigate their attitudes towards their jobs	Ras5	0.84	0.00	Confirmed

### 3.3. The final research model (Research Structural Equation)

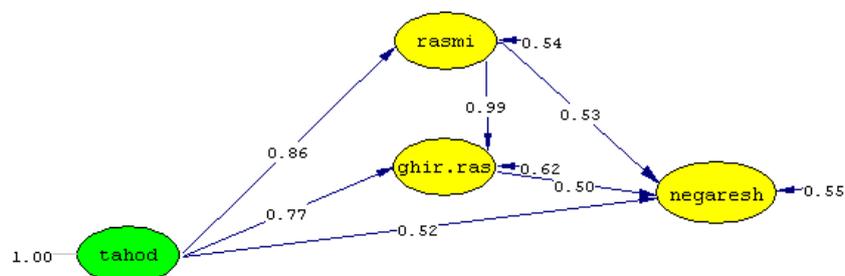


Figure 5: Final structural equation model of research

Table 9 summarizes the path of structural equation model of this study, in this table, the values of both models are presented in case of T and standard mode.

Table 9: Selection of important fitting indicators of graphical model

(Formative-Reflective) path			Graphic signs	Standardized B coefficient	t
management commitment in internal marketing	F	official internal communications	tahod	0.86	16.71
management commitment in internal marketing	F	Informal internal communications	tahod	0.77	15.06
management commitment in internal marketing	F	Employee attitude to work	tahod	0.52	8.87
official internal communications	F	Informal internal communications	rasmi	0.99	24.76
official internal communications	F	Employee attitude to work	rasmi	0.53	9.41
Informal internal communications	F	Employee attitude to work	Ghir.rasmi	0.50	8.39

## 4. Conclusion

Internal marketing is known as a strategy for the implementation of organizational programs. Studies related to this field suggest that internal marketing activities improve the competitiveness and enhance competences through influence and motivating employees. Internal marketing can be considered as a source of competitive advantage. Through which managers can prepare and provide context for performance improvement due to underlying factors in creating a positive attitude to work among their employees. Of course internal marketing includes set of actions such as attracting, developing, motivating, and continuity of employees through job as a product and satisfaction of them that is identified with two main elements of official internal communications and non-official internal communications.

According to the pattern of path analysis and values in table 9 standard coefficient of path after management commitment in internal marketing equals to 0.52 and ( $t = 8.87$ ). Thus, according to T of this path ( $t = |8.87| > 2.56$ ), It can be concluded that with a probability of 99%, the H0 assumption is rejected and H1 assumption is confirmed. In other words, management commitment in internal marketing have a positive impact on perceived working attitude of employees and thus the relationship is positive and assumption is confirmed. In other words, in increments of one unit in variable of management commitment in internal marketing, perceived working attitude of

employees increases 0.52. Thus with an increase in management commitment in internal marketing of the Iranian Central Oil Fields Company the amount of perceived working attitude of employees in this company is strengthened.

According to the pattern of path analysis and values in table 9 standard coefficient of path after management commitment in internal marketing equals to 0.86 and ( $t = 16.71$ ). Thus, according to T of this path ( $t = |16.71| > 2.56$ ), it can be concluded that with a probability of 99%, the H0 assumption is rejected and H1 assumption is confirmed. In other words, management commitment in internal marketing will have a positive impact on official internal communications of employees and thus the relationship is positive and assumption is confirmed. In other words, in increments of one unit in variable of management commitment in internal marketing, official internal communications of employees increases 0.86 thus with an increase in management commitment in internal marketing of the Iranian Central Oil Fields Company the amount of official internal communications of employees is strengthened.

According to the pattern of path analysis and values in table 9 standard coefficient of path after official internal communications equals to 0.53 and ( $t = 9.41$ ). Thus, according to T of this path ( $t = |9.41| > 2.56$ ), it can be concluded that with a probability of 99%, the H0 assumption is rejected and H1 assumption is confirmed. In other words, the official internal

communications will have a positive impact on perceived working attitude of employees and thus the relationship is positive and assumption is confirmed. In other words, in increments of one unit in variable of official internal communications, perceived working attitude of employees increases 0,53 thus with an increase in official internal communications of the Iranian Central Oil Fields Company the amount of perceived working attitude of employees is strengthened.

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## REVIEW AND EVALUATE THE PERFORMANCE OF THE FACTORY RADIATOR VALVES WITH FUZZY INFERENCE SYSTEM

<sup>a</sup>ABULFAZL ASADOLLAHI

<sup>a</sup>MSc of Industrial Engineering, Islamic azad University, Tehran, Iran

Email: <sup>a</sup> aboulfazl.asadollahi17@gmail.com

**Abstract.** Using of formal evaluation systems comes back to 19th century. Change and development of evaluation indexes in the form of providing universal principals for evaluating the organizations to total quality management represents the course of evaluation systems development. In one hand, organizations spend lots of cost and time to develop, formulate and implement strategies to be able to achieve long-term objectives and perspectives. Therefore, knowing the performance and the situation of the organization in today's complex and dynamic environment is of great importance for managers. Hence, we want to evaluate the most important factors of radiator valves manufacturers in this study including financial and economic index, customers' index and environmental factors index.

**Keywords:** formal evaluation systems, situation of the organization, managers, financial and economic index

### 1 Introduction

Doing useful, effective and objective evaluations is the driving engine and starter of each improvement project. Performance evaluation is the most important tool for ensuring of precise and timely implementation of strategy in an organization. Conditions, scope, criteria, indexes and features of a performance evaluation system should be set based on the organization's conditions, strategy and features. If a performance evaluation system and its indexes are not proper for a given organization and can't meet the demands and needs of its stakeholders, managers and staff, it not only won't help to the problem solution but also won't be supported and will fail. If performance evaluation is done with processing, continuous and correct view, it will enhance the accountability of executive organizations, public trust to organizations and efficiency and effectiveness of government in governmental section. It also will improve resource management, customer satisfaction, national development, and will help to create new power, stability, and improve of world class of companies and institutions.

Shortage in traditional systems of performance evaluation led to a revolution in performance management so that researchers and users moved toward the creation of systems that consider the current objectives and environment. In this way, multiple processes were created to be used in various organizations. Many frameworks also suggested for supporting these processes, which their objectives were to help organizations in correct and proper evaluation of their performance. By developing and increasing the complexity, the definition of "performance" extended and gradually included all the dimensions of the organization and its processes.

Performance evaluation is one of the main duties of any organization and aspects of performance management. Organizations have complex nature, which is emanating from creative, unique and unstructured activities of this area and needs dynamic management for improving its situation. This management structure should be able to transfer continuously macro level decisions to operational layers and evaluate the results according to defined objectives. For doing so, we seek to evaluate the performance of radiator valves manufacturers and we believe that performance evaluation of this factory will increase the productivity, effectiveness, efficiency and motivation of staff. Since the part of needed information in evaluations are imprecise and descriptive and it is needed to reflect the spectral impacts of many indices quantitatively in evaluation, Fuzzy logic has been used for solving some of the problems (Qolamreza Tabarsa, 2008).

### 2 Performance Evaluation

Evaluation is one of important and effective management tools for achieving needed information for decision-making about the performance of an organization's staff. By correct use of this tool, not only objectives and missions of organization will reach optimal efficiency, but also the interests of staff and society will be met. In other words, it can be said that evaluation is the secret of management's success.

Perhaps, nothing is more difficult for managers than evaluating the performance of subordinates. However, performance evaluation is one of the features of today's professional world and can help to create efficient work force (Ashish & Zachary, 2004). In fact, the main objective of performance evaluation is to stimulate the employees for doing the tasks and the organization's mission. Improvements, assigned tasks, selection for training and increasing the salary based on evaluation can stimulate the motivation (Swansburg, 2002). Recognition of expected consequences of performance evaluation in health care systems can help managers to focus on evaluation process for achieving those consequences (Shah & Layman, 2005).

Expected consequences of performance evaluation contain:

- Performance improvement
- Knowing the educational needs and optimizing human resources
- Providing a basis for rewards and motivation.

It is expected that a valid and reliable performance evaluation system provide information about strengths and weaknesses and the needs of evaluated person for managers and the person itself. If this information is used for reinforcement of evaluated person's strengths and planning for progress in needed fields, it can improve performance, motivation and productivity.

Azadeh et al., (2015) addressed in a research the performance evaluation of electrical distribution units with random data envelopment analysis-based approach. In this research, network length, transfer capacity and staff number have been selected as input and a number of customers, total sold electricity are random output. Also in this research, the best electrical distribution unit is selected based on efficiency scores in random environment. The results of this research showed that network length is the most important and effective input factor.

Nana and Zhao (2016) in a research evaluated the performance of compatible thermal power stations with industrial environment using the combination of GRA-VIKOR in Fuzzy setting. They presented an effective algorithm in this model, which contains the decider's attitude in performance rating of criteria and integrating of objective information and subjective ideas in defining the weight criteria based on Fuzzy analytic hierarchy process and Shannon entropy. The research results showed that dependent criteria to trash recycling and pollutant emission are the most effective factors in this industry.

Khakpour and Zafarqandi (2015) in a research presented the safety performance evaluation based on organizational factors effective on industry safety using Fuzzy inference system. The research findings indicated that formulated model has the ability to evaluate the safety performance in industries and based on it, we can calculate the score, which shows the safety performance of industries. Using of the model in a company as the model's test place shows that safety performance score was calculated as 0.607. This amount is considered desirable with membership of 0.528 and average with membership of 0.472.

### 3 Fuzzy Inference System

For the first time in 1965, Lotfi-Ali Asgarzadeh raised the fuzzy set theory. Since then this theory has been applied as an important research tool in many fields of engineering problems including decision-making, monitoring and forecasting issues. The fuzzy theory means all theories that use the basic concepts of fuzzy set with membership functions so that fuzzy decision-making, fuzzy systems, fuzzy logic and fuzzy mathematics are among them.

Fuzzy math as a starting point in the fuzzy set theory provides a primary language for fuzzy systems. Fuzzy math alone is a vast field in which mathematical principles by replacing the fuzzy sets instead of classical mathematics collections have been developed. In this way all the branches of classic mathematics are converted in the form of fuzzy.

The main thing in the expression of fuzzy mathematics is the concept of fuzzy set. In practice classical sets are defined by specific membership condition. Against the fuzzy set there is a set of elements belonging to a space that its boundaries have not been defined precisely. In this case the membership condition of set isn't ascertained and precise.

Therefore, in the case of fuzzy sets, membership of element X in the A set isn't as binary type (element X belongs to set or does not belong to the set A), and this membership function is called  $(x) \mu_A$ . The membership function presents the amount of members' belongs to a set whose value is between the real deal of zero and one. Membership value close to one, indicates a high element of their belonging to set A and vice versa closer to zero, the less belong in the field. Membership value close to one indicates a high belongs of element X to the set A and vice versa approaching it to zero indicates less belongs to set. Using the concept of fuzzy set linguistic terms can be expressed mathematically. Oberguggenber has offered a way to define a fuzzy set. In this way, the value of each parameter with the membership value of  $\alpha$  has been defined by the interval of  $0 \leq \alpha \leq 1$ .

The definition of  $\alpha$ , is expressed by designer engineer or one who makes decision but remain constant during the whole process of modeling.

In the framework of fuzzy set method if the parameter value is between  $X_a$  and  $X_b$  and close to  $X_b$ , as well as is defined as membership in Equation 1, the fuzzy set will be a triangular fuzzy number (Figure 1).

$$\mu_A(x) = \mu_A(x; a, b, c) = \begin{cases} (x-a)/(b-a) & : a \leq x \leq b \\ (c-x)/(c-b) & : b \leq x \leq c \\ 0 & : x < a \text{ or } x > c \end{cases} \quad (1)$$

The cutting surface of  $\alpha$ , and the corresponding interval values of variable X that the membership degree of  $\alpha$  is corresponding to it, has been shown in the Figure 1. The corresponding interval of  $\alpha=0$  is the abutment of fuzzy numbers and the cutting surface for  $\alpha=1$  for triangular membership function, the range of values are reduce to an absolute number (lowest).

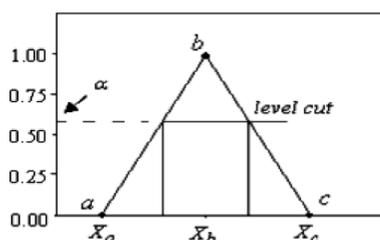


Figure 1 Triangular fuzzy number

### 4 Research goal

The aim of this study is to evaluate the performance of radiator valves plant in terms of three dimensions: financial, customer and an environment for optimal allocation of resources, controlling, directing, organizing and more.

### 5 Types and methods of research

In terms of research purpose, regarding the present study evaluate the performance of radiator valves plant, is classified in the applied research area. Also, the present study in terms of collection of the required data is classified as "exploratory research".

To collect research data in addition to the study of literature, the researcher made questionnaires were used and to prepare questionnaire, a meeting with the participation of seven experts and elites of factories was held and using Delphi technique, 12 components affecting the performance evaluation were recognized and classified in three dimensions, and ultimately, the recognized dimensions using the software MATLAB 2013, based on the Mamdani's mini-max fuzzy inference fuzzy and non-fuzzy of center of gravity method were analyzed.

The study population consisted of all employees of radiator valves factory (plant) with 180 people.

According to the population and using Cochran formula, the calculated sample size was calculated 122 people that these people were randomly selected.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left( \frac{z^2 pq}{d^2} - 1 \right)} \quad (2)$$

### 6 Reliability and validity

To analyze the obtained data through the questionnaire, two methods of reliability and validity have been used.

- The validity: In this study, to ensure the validity of the questionnaire the face validity has been used. In this stage to begin the process of determining the face validity, the questionnaire was submitted to two specialists to examine the questionnaire in terms of desirability of statements about its clearness (using simple and understandable terms), the use of a common language (avoid using the term technical) and some changes were made in the items of the questionnaire to be easier and increase clients understanding. The face validity from the perspective of target group will respond to these questions: Is the designed tool relevant ostensibly to study purpose? Are people who are supposed to respond tools agreed with phrases and wording of tool? Is the perception of lay people (target group) is the same perception that researcher has? Are the components and the totality of tool acceptable for respondents? According to the description provided, the questionnaire in this study was shown to several professors as well as experts and eventually after the correction of errors was approved.

- Reliability: Several methods exist to measure the reliability and Cronbach's alpha is the most common technique and in this study to assess the internal consistency of items of questionnaire the Cronbach's alpha technique has been used. In the present study SPSS software was used to calculate it. The more Cronbach's alpha value, the more reliability of questionnaire, also if the Cronbach's alpha value is more than 0.7, the reliability would be good and in the case of 0.5 to 0.7 the validity is the average and less than 0.5 indicates the questionnaire lacks necessary reliability. According to

information obtained from the questionnaire, Cronbach's alpha for the questionnaire was (0.794), which is good and reasonable.

Table 1 The reliability of the whole questionnaire

Cronbach's alpha values	The number of questions
0.794	12

**7 Results**

The evaluation of the economic and financial performance of radiator valves manufacturing plant the financial and economic dimension has the following four criteria shown in Table 2. Each of the following criteria is considered an input for the fuzzy system.

Table 2 The sub-criteria of financial and economic dimension

Sub-criterion	Criterion
How much the savings in the financial resources and equipment's of the company	Financial and economic dimension
To what extent is it reasonable rate of sales growth reasonable	
To what extent is it reasonable rate of return on investment	
To what extent is reasonable the Shareholders of the company dedicated income	

The fuzzy system in this section has four inputs and one output. The first input is related to save financial resources, the second input for sales growth rate, the third input for the rate of return

on investment and forth input related to specific income of stockholders that are shown in Figure 2.

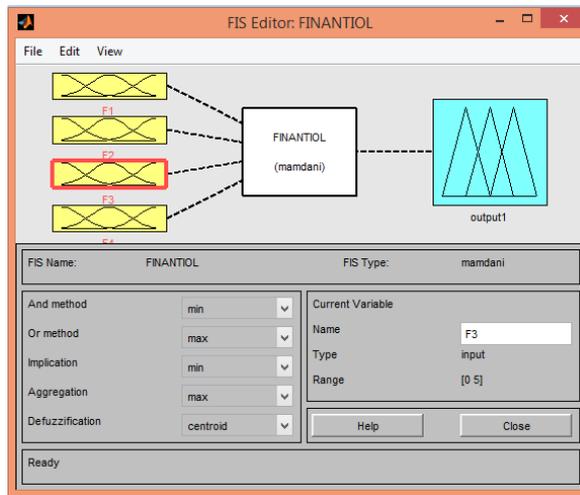


Figure 2 The Toolbox of Logic fuzzy for Financial and Economic dimension

The figure 3-9 (2) represents the amount of each of the fuzzy inputs and outputs of the financial and economic criteria.

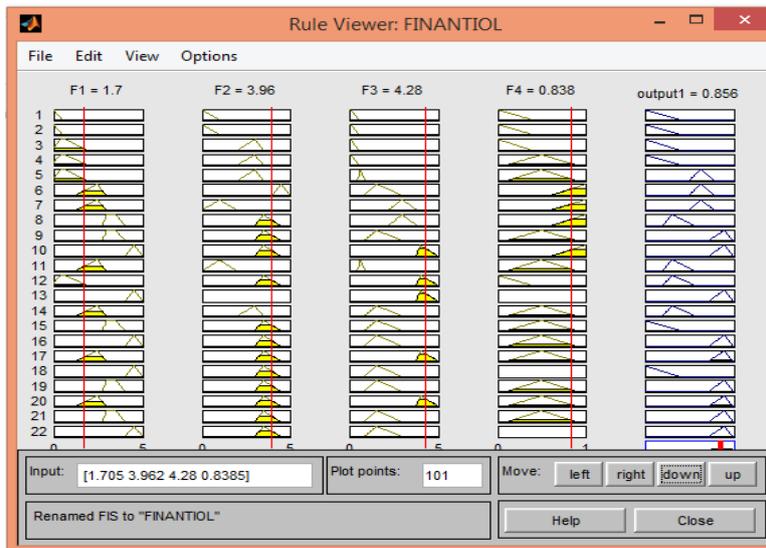


Figure 3 The relationship between the inputs and outputs of financial and economic dimension (criterion)

Figure 4 shows the fuzzy relationship made between inputs and outputs of financial and economic dimension (criterion).

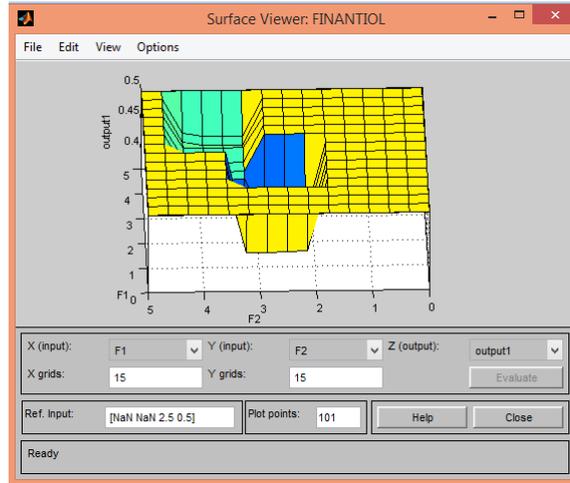


Figure 4 The results of fuzzy making of financial and economic dimension (criterion)

Performance evaluation of the financial and economic dimension based on the four sub-criteria was equal to 0.85 with the membership degree of 0.34 belongs to higher class and 0.66 belongs to good class.

Performance evaluation of the radiator valves manufacturing factory (plant) in the customer dimension (criterion)

The developmental dimension (criterion) has five sub-criteria are shown in Table 3. Each of these sub-criteria is an input for the fuzzy system.

Table 3 The sub-criteria of costumer dimension

Sub-criterion	Criterion
To what extent is important for this company maintaining (retention) the costumer	Customer dimension
To what extent is timely the delivery of goods and service	
To what extent is desirable the quality of delivered services	
To what extent is reasonable the variety of products delivered by this company	
To what extent is the citizens' satisfaction desirable about products delivered	

The output of the fuzzy rules implementing related to inputs and outputs related to the customer dimension are shown in Figure 5.



Figure 5 The relationship between the fuzzy inputs and outputs of customer dimension

Fuzzy relationship made between output and inputs related to customers dimension is shown in Figure 6.

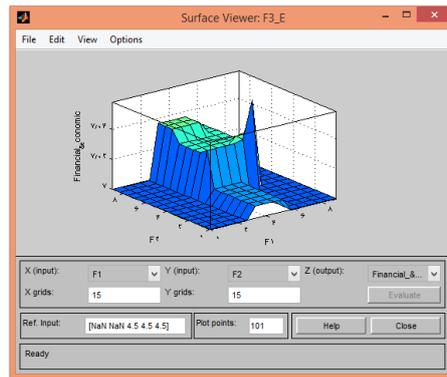


Figure 6 Results of the fuzzy making of the customer dimension

Performance evaluation of costumer dimension based on the five sub-criteria was equal to 0.81 that with the membership degree of 0.29 belongs to good class and 0.71 belongs to higher class.

The environmental factors dimension (criterion) has three sub-criteria are shown in Table 4. Each of these sub-criteria is an input for the fuzzy system.

Performance evaluation of the radiator valves manufacturing factory (plant) in the environmental factors dimension (criterion)

Table 4 environmental factors dimension

Sub-criterion	Criterion
To what extent is reasonable the company's ability to compete with its competitors	Environmental factors dimension
To what extent is this company compatible with technological changes	
To what extent this company has attempted to implement the new technology	

The output of the fuzzy rules implementing related to inputs and outputs related to the environmental factors dimension are shown in Figure 7.

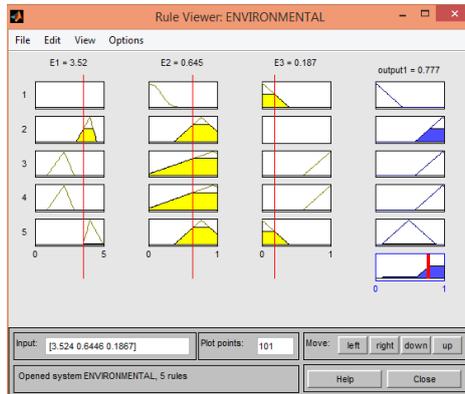


Figure 7 The relationship between input and output fuzzy of environmental factors dimension

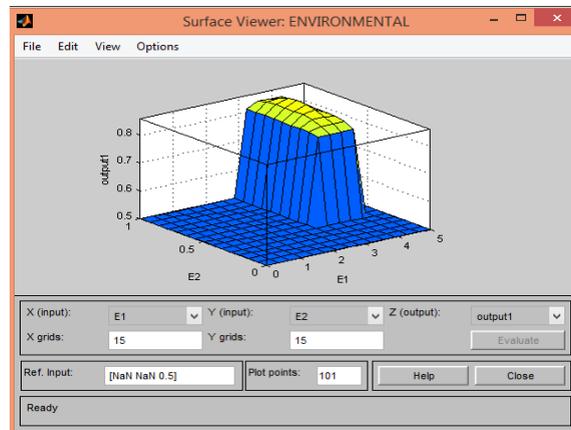


Figure 8 Results of the fuzzy making of the environmental factors dimension

Performance evaluation of environmental factors dimension based on the three sub-criteria was equal to 0.77 that with the membership degree of 0.45 belongs to good class and 0.55 belongs to average class.

## 8 Conclusion

The pundits and researchers believe that performance evaluation is the main theme in all the institutional analyzes and organizational perspective that includes evaluation and performance measurement is difficult. The evaluation and performance measurement lead to smarter system and motivate people to desirable behavior and the main part of organizational policy formulation and implementation, so if an organization wants to have a good performance should assess its operability. In this study, the performance of radiator valves plant was evaluated and the results show, the evaluation of financial and economic performance of this plant is placed in the higher and good class and based on costumer dimension (indicator) is good and excellent and based on environmental factors dimension (indicator) placed in the good and average category.

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# INVESTIGATING THE EFFECT OF PERCEIVED AUTHENTIC LEADERSHIP ON ORGANIZATIONAL COMMITMENT THROUGH THE MEDIATING ROLE OF ORGANIZATIONAL TRUST

<sup>a</sup>AMIR HOSSEIN AMIRKHANI, <sup>b</sup>FARID TAJALAEI,  
<sup>c</sup>EBRAHIM KAMAL AGHDAM, <sup>d</sup>MAHMOUD  
MIRMOHAMMADI

<sup>a</sup> Associate Professor, Payame Nour University, Tehran, Iran

<sup>b</sup> Master of Executive Management Varamin Branch,  
Payamenoor University, Iran

<sup>c</sup> Master student of Executive Management Varamin Branch,  
Payamenoor University, Iran

<sup>d</sup> Master of Executive Management, Varamin Branch,  
Payamenoor University, Iran

Email: <sup>a</sup>gamir.h.amikabiri@gmail.com,

<sup>b</sup>faridtajallayi@gmail.com, <sup>c</sup>ebrahm.aghdm123@gmail.com,

<sup>d</sup>mhm.mirmohammadi2@gmail.com

**Abstract.** This study aimed to investigate the effect of perceived authentic leadership on organizational commitment through the mediating role of organizational trust was performed. The population included an all employees of the Bank Ghavamin branch management in West Tehran in 2016 (N=380). The sample size using Morgan table 180 was estimated. We Perceived authentic leadership questionnaire to measure the variables of perceived authentic leadership and Allen and Meyer (1991) Questionnaire (Nahian and Marlowe, 1997) was used. The reliability and validity of the questionnaire were confirmed. Software for the analysis of the research hypotheses, structural equation modeling approach based on partial least squares was used that the findings confirm hypotheses.

**Keywords:** authentic leadership, organizational commitment, organizational trust, Smart-PLS

## 1. Introduction

Banks as financial institutions have an important role in the circulation of money and wealth in society and can spread through the acquisition of assets of individuals and organizations and injecting it into the economy to create value-added economic activities in the country. One of the important requirements of the banking system overall, is the performance of the national economy and banks can provide services required by citizens as well as effective. On the other hand the development of financial institutions as well as public and private banks in the country more competitive field has made them more than ever. There is consensus in the literature that leadership is an important factor for the success or failure of an organization, organizations began to work with a great leadership, and organizational success is a reflection of the leadership (Garg & Ramjee, 2013). Leadership in organizations is successful long-term effective and genuine. Philosophers, religious leaders and thinkers from ancient time the importance of authenticity for leaders achieve effective administration of affairs under any circumstances; have underlined (Hassan and Ahmad, 2011). Especially when authentic leadership theory emerged that at least three important underlying factors that needs to be raised among the leaders of authenticity - social change, and technological advanced with increased globalization and Managerial malfeasance (Franklin, 2010). In general, the principle of authentic leadership as a requirement for organizations to open the leader-follower relationship dynamics due to ethical issues and deals with the complexities of the organization and improvement of internal and external issues on the (Ghane Nia, 2014).

In addition, organizations need to raise the level of employee commitment. Organizational commitment to personal and organizational consequences that entails is very important. Organizational commitment makes employees more identification with the goals and values of the organization, for the benefit of the organization to spend more effort and more desire to remain within the organization (Morrow, 1983, quoted by Garg & Ramjee, 2013). Ningna (2007; quoted from, Wiza &

Hlanganipai, 2014) states organizational commitment reflects the organization's leadership qualities.

Garg & Ramjee (2013) also suggest that organizational commitment and trust depends on many factors, including leadership. In fact, organizational trust is one of the important organizational challenges which can be a significant role in different organizational results and cause such commitment. In fact, one of the important implications that could cause confidence is increasing its commitment. However, due to the limited research in this area, particularly in banks and financial institutions has been conducted. This study aimed to investigate the effect of perceived authentic leadership on organizational commitment of staff and the mediating role of organizational trust has been done. This research is important in this respect that with new approach investigated the organizational commitment in the bank Ghavamin.

## 2. Hypotheses

### 2.1 Main hypothesis

Authentic leadership perceived the mediating role of organizational trust has impact on organizational commitment.

### 2.2 Sub hypotheses

Transparency of relationship of perceived authentic leadership has impact on organizational trust.

Inner conscience of perceived authentic leadership has impact on organizational trust.

Balanced processing of perceived authentic leadership has impact on organizational trust.

Self-awareness of perceived authentic leadership has impact on organizational trust.

Transparency of relationship of perceived authentic leadership has impact on organizational commitment.

Inner conscience of perceived authentic leadership has impact on organizational commitment.

Balance processing of perceived authentic leadership has impact on organizational commitment.

Self-awareness of perceived authentic leadership has impact on organizational commitment.

## 3. Theoretical foundation

### 3.1 Authentic Leadership

Perceived authentic leadership refers to those who are deeply conscious thoughts and behavior and others see them as those of the values, the vision, knowledge and ability to understand themselves and others are aware; and are also aware of the environment in which they operate; they are the ones who are confident, hopeful, optimism, resilience and moral characteristics are high level (Avolio, Luthans Walumbwa, 2004). Authentic leadership is a four-component (Walumbwa et al., 2009; Luthans, 2014).

**Self-awareness:** self-awareness and confidence as leaders of character, values, motives, emotions and personal perceptions of their relative. Conscious leaders know your strengths and weaknesses, know how their behavior affects others, know themselves and know what they want.

**Balance Processing:** Processing balanced extent to which the leader analyzes the information before making a decision and asked for the views of the other positions that challenged him. In

fact, authentic leadership ability hear, interpret and processing both positive and negative information before making a decision or taking any action.

Inner conscience: this aspect of self-expression is a process by which leaders adapt their activities to the goals and values. Authentic leadership in the face of external pressures that is contrary to the moral standards of their resistance through the process of internal control. Ethical aspects of internalized self-control refer to the internal and evolved.

Transparency relationship between the leaders: the transparency of the relationship between the leader and the others show their originality, sharing information with others and express your thoughts and feelings is real, a genuine leader must communicate this information to others in an open and honest disclosure of their actual.

### 3.2 Organizational Commitment

Organizational commitment is as a psychological state as the relationship of an employee with the organization. This regard, the intention of the employee to maintain a particular path of action in which case stay in the organization-the influence (Allen, 2007). Dimensions of emotional commitment are as follows:

1. Emotional commitment that expresses a person's emotional attachment to the organization.
2. Continuous commitment that includes expected costs is due to leave the organization
3. Normative commitment: the commitment and sense of duty to stay in the show (Meyer and Allen, 1990, p. 4 and 5).

Organizational commitment can be used as the person's loyalty to a particular employer, or loyalty to the organization (Kopru, 2013).

Luthans (2010) states that organizational commitment is defined as an attitude often 1- a strong desire to stay in the organization; 2- The desire to exert great efforts for the organization and 3- Having a strong belief that the values and goals of the organization.

### 3.3 Organizational Trust

Organizational Trust as positive expectations of people based on organizational roles, relationships, interdependencies of different experiences and intentions and behaviors are members of defined (Shokley-Zalbak, Ellis, Winograd, 2000; quoted in Qanenia, 2013). Ellis and Winograd (2000) argue that organizational trust positive individual perceptions that people have about the content and behavior of members of the organization and based on roles, communication, experiences and organizational ties are formed. Trust the other person defined as a voluntary engagement (Zarei et al., 2009).

## 4. Research method

This paper is a research categorized in terms of data collection, descriptive study and based on survey data to investigate the effect of perceived authentic leadership on organizational commitment with mediating role of organizational trust is analytic survey. On the other hand the present study in term of purposes is an applied. The study population included all employees of the Bank Ghavamin branch management in West Tehran in 2016 (N =380) and sample size using Morgan table 180 was estimated and randomly were placed at the disposal of staff in branch of West Tehran. In order to ensure an acceptable return researcher questionnaires were distributed 200 questionnaires to remove 170 valid questionnaires were not answered by the investigator to be accessed. In this study, to

collect data from field study (questionnaire) and Libraries (reading books, journals, theses, articles in Persian and English) is used.

Walumbwa et al., (2008) Perceived authentic leadership questionnaire to measure the variables of perceived authentic leadership in the five-point scale (totally agree to totally disagree) is used which aims to assess how employees perceived authentic leadership in four aspects of transparency, self-awareness, Inner conscience and balance processing.

Allen and Meyer (1991) questionnaire to measure organizational commitment was used and three components of indulging, strength, sacrifices in the five-point Likert scale (very high to very low) has been established.

Organizational trust 16 questionnaire to measure the variables of organizational trust (Nahian and Marlowe, 1997) in a five-point scale (always to never) has been used and trust is based on four components to evaluate the organizational discipline and discipline, sense of responsibility at work, cooperation is working and improve on the job. To determine to what extent the selected components to be acceptable measurement models and components are designed for variable valid, the measurement model is analyzed. So to confirm the construct validity, confirmatory factor analysis using structural equation modeling software (Amos) was used. Given that all perceived authentic leadership, organizational commitment and organizational trust has an acceptable load factor (0.5) and were significant at the 0.05 level, and the construct validity was confirmed. In this study was to determine the reliability test, Cronbach's alpha was used. Cronbach's alpha coefficient was calculated using the software Spss22, the perceived value of 0.719 for the questionnaire authentic leadership; 0.73 organizational commitment, and organizational trust was 0.792. Given that the study of humanities, Alpha higher than 7.0 is acceptable, so we can evaluate the reliability of the questionnaires was good. Software for the analysis of the research hypotheses, structural equation approach based on partial least squares (Smart-PLS) was used.

## 5. Results

The main hypothesis: authentic leadership perceived the mediating role of organizational trust has impact on organizational commitment.

The results of the research conceptual model in Table 1 indicate that the effect of authentic leadership on organizational commitment is 0.37 but with the added variable to the conceptual model of organizational trust, the effects of authentic leadership on organizational commitment amount ( $t=0.565$ ) equal to 0.06 and is insignificant; in other words we can say that authentic leadership directly had no significant effect on organizational commitment but indirectly and through changing organizational trust has a significant impact on organizational commitment, the amount of which is equal to 0.30. Given that the amount of ( $t=4.604$ ) higher than 1.96 and less than 0.05 significance level, with confidence 95 % the main research hypothesis is confirmed.

The results indicate that variable of organizational trust plays mediating role in the relationship between perceived authentic leadership and organizational commitment and the effect of perceived authentic leadership takes place completely via organizational commitment and organizational trust. The results also show the conceptual model the value of authentic leadership on organizational trust is equal to 0.59 and the value of organizational trust, organizational commitment is equal to 0.51. Then, a conceptual model based on quantities of t-value is provided for meaningful path and the higher values of (1.96) reflect the significance of impact factors and factor loadings.

(1) The effect of perceived authentic leadership with mediating role of organizational trust and organizational commitment

Table 1 the direct and indirect effects of variables based on PLS output

Paths	Direct effect	Indirect effect	P	t	Total effect
organizational commitment ← authentic leadership	0.068-	---	0.573	0.565	0.375
organizational commitment ← authentic leadership	---	0.307	0.000	4.604	0.537
organizational trust ← authentic leadership	0.590	---	0.000	10.362	0.590
organizational commitment ← organizational trust	0.513	---	0.000	5.700	0.513

Figure1 the t-value show significant direction of path coefficient and factor loading. Regarding the t values, with confidence 95% it can be said perceived authentic leadership has positive and significant effect on organizational trust, organizational trust has a positive and significant effect on organizational commitment and direct effect of authentic leadership on organizational commitment is not significant.

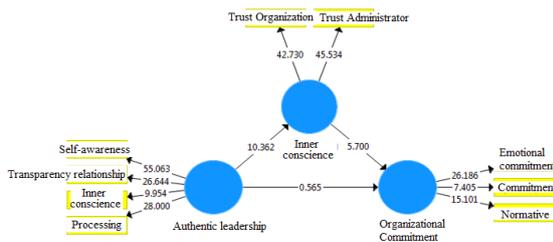


Figure 1 t-value of significant direction of path coefficient and factor loadings and conceptual model

Sub hypotheses:

First sub-hypothesis: Transparency of relationship of perceived authentic leadership has impact on organizational trust.

Results of research hypothesis based on the graphic output software PLS in Figure 2 shows the transparency of the relationship has direct and positive impact on employee's organizational trust that is equal to 0.54. In other words we can say that about 29.7 percent of the variance in organizational trust by transparency relationship is explained.

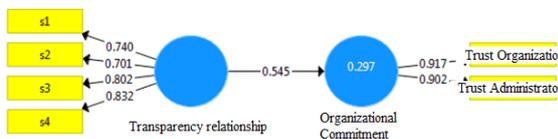


Figure 2 The impact of transparency of relationship on organizational trust

Figure 3 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between transparency of relationship and organizational trust (8.971) is higher than 1.96; so one can say with confidence 95% transparency of relationship has significant impact on organizational trust so research hypothesis is confirmed.

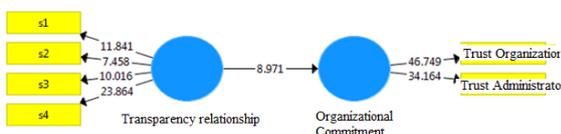


Figure 3 t-value of significant direction of path coefficient and factor loadings

Second sub-hypothesis: Inner conscience of perceived authentic leadership has impact on organizational trust.

Results of research hypothesis based on the graphic output software PLS in Figure 4 shows the inner conscience has direct and positive impact on employee's organizational trust that is equal to 0.43. In other words we can say that about 18.8 percent of the variance in organizational trust by inner conscience is explained.

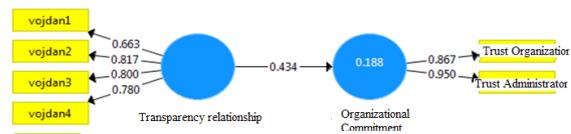


Figure 4 The impact of inner conscience on organizational trust

Figure 5 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between inner conscience and organizational trust (5.469) is higher than 1.96; so one can say with confidence 95% inner conscience has significant impact on organizational trust so research hypothesis is confirmed.

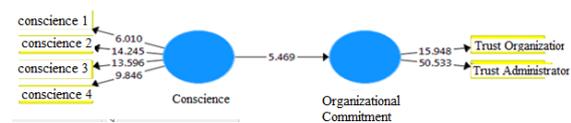


Figure 5 t-value of significant direction of path coefficient and factor loadings

Third sub-hypothesis: Balanced processing of perceived authentic leadership has impact on organizational trust.

Results of research hypothesis based on the graphic output software PLS in Figure 6 shows the balanced processing has direct and positive impact on employee's organizational trust that is equal to 0.48. In other words we can say that about 23.6 percent of the variance in organizational trust by balanced processing is explained.

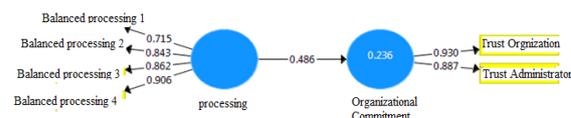


Figure 6 The impact of balanced processing on organizational trust

Figure 7 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between balanced processing and organizational trust (7.237) is higher than 1.96; so one can say with confidence 95% balanced processing has significant impact on organizational trust so research hypothesis is confirmed.

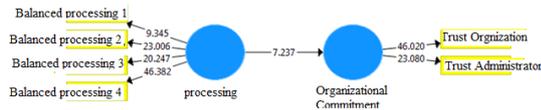


Figure 7 t-value of significant direction of path coefficient and factor loadings

Fourth sub-hypothesis: Self-awareness of perceived authentic leadership has impact on organizational trust.

Results of research hypothesis based on the graphic output software PLS in Figure 8 shows the self-awareness has direct and positive impact on employee’s organizational trust that is equal to 0.61. In other words we can say that about 38.3 percent of the variance in organizational trust by self-awareness is explained.

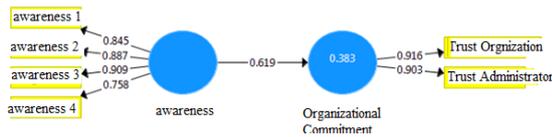


Figure 8 The impact of self-awareness on organizational trust

Figure 9 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between self-awareness and organizational trust (9.977) is higher than 1.96; so one can say with confidence 95% self-awareness has significant impact on organizational trust so research hypothesis is confirmed.

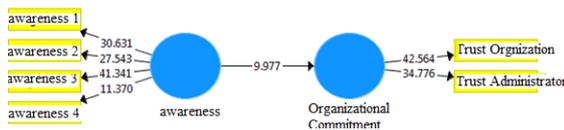


Figure 9 t-value of significant direction of path coefficient and factor loadings

Fifth sub-hypothesis: Transparency of relationship of perceived authentic leadership has impact on organizational commitment.

Results of research hypothesis based on the graphic output software PLS in Figure 10 shows the transparency of the relationship has direct and positive impact on employee’s organizational trust that is equal to 0.35. In other words we can say that about 12.7 percent of the variance in organizational commitment by transparency of relationship is explained. Then, a conceptual model based on t-value significant direction of path coefficients is provided that values is higher (1.96) reflects the impact factors and factor loadings are significant.

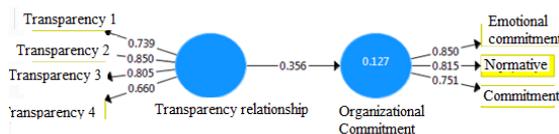


Figure 10 The impact of transparency of relationship on organizational commitment

Figure 11 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between transparency of relationship and organizational commitment (4.218) is higher than 1.96; so one can say with confidence 95% transparency of relationship has significant

impact on organizational commitment so research hypothesis is confirmed.

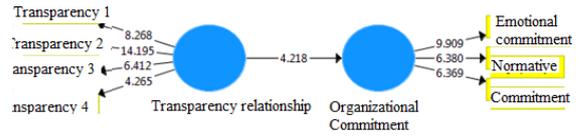


Figure 11 t-value of significant direction of path coefficient and factor loadings

Sixth sub-hypothesis: Inner conscience of perceived authentic leadership has impact on organizational commitment.

Results of research hypothesis based on the graphic output software PLS in Figure 12 shows the inner conscience has direct and positive impact on employee’s organizational commitment that is equal to 0.31. In other words we can say that about 10.1 percent of the variance in organizational commitment by inner conscience is explained. Then, a conceptual model based on t-value significant direction of path coefficients is provided that values is higher (1.96) reflects the impact factors and factor loadings are significant.

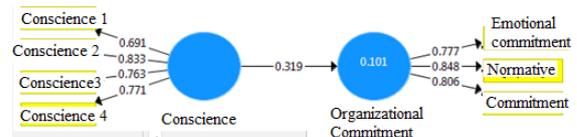


Figure 12 The impact of inner conscience on organizational commitment

Figure 13 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between inner conscience and organizational commitment (2.357) is higher than 1.96; so one can say with confidence 95% inner conscience has significant impact on organizational commitment so research hypothesis is confirmed.

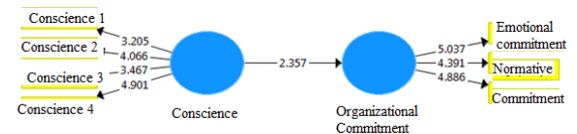


Figure 13 t-value of significant direction of path coefficient and factor loadings

Seventh sub-hypothesis: Balance processing of perceived authentic leadership has impact on organizational commitment.

Results of research hypothesis based on the graphic output software PLS in Figure 14 shows the balanced processing has direct and positive impact on employee’s organizational commitment that is equal to 0.31. In other words we can say that about 10.1 percent of the variance in organizational commitment by balanced processing is explained.

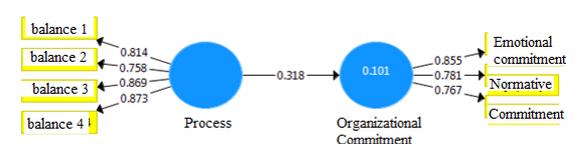


Figure 14 The impact of balanced processing on organizational commitment

Figure 15 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between balanced processing and organizational commitment (4.579) is higher than 1.96; so one can say with confidence 95% balanced processing has significant impact on organizational trust so research hypothesis is confirmed.

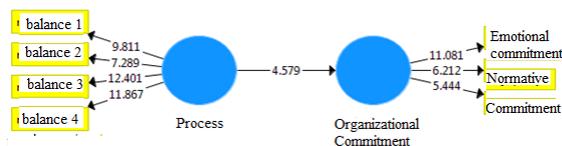


Figure 15 t-value of significant direction of path coefficient and factor loadings

Eighth sub-hypothesis: Self-awareness of perceived authentic leadership has impact on organizational commitment.

Results of research hypothesis based on the graphic output software PLS in Figure 16 shows the self-awareness has direct and positive impact on employee's organizational commitment that is equal to 0.37. In other words we can say that about 13.8 percent of the variance in organizational commitment by self-awareness is explained.

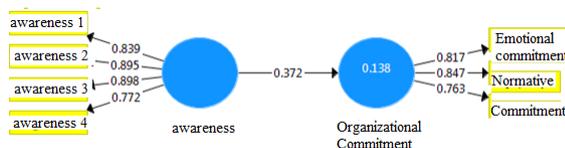


Figure 16 The impact of self-awareness on organizational commitment

Figure 17 the t-value show significant direction of path coefficient and factor loading. T-value show path coefficients between self-awareness and organizational commitment (4.251) is higher than 1.96; so one can say with confidence 95% self-awareness has significant impact on organizational commitment so research hypothesis is confirmed.

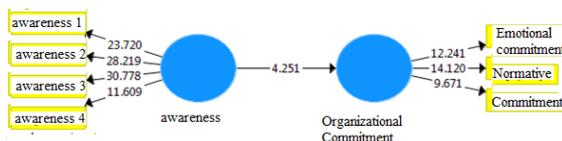


Figure 17 t-value of significant direction of path coefficient and factor loadings

## 6. Discussion

This study aimed to investigate the effect of authentic leadership on organizational commitment with mediating role of organizational trust was done. In summary findings approved the research hypotheses about the effect of authentic leadership on organizational commitment with mediator role of organizational trust. Then explains the results and compare it with previous studies will be analyzed. According to research findings about the main theory, we can say that the hypothesis about the effect of authentic leadership on organizational commitment with mediator role of organizational trust accepted. Various researches have been done on the effect of authentic leadership on organizational trust. Mirmohammadi et al., (2012), Clapp Smith et al., (2009), Kliuchnikov (2011), Kim (2014) Maximo (2015), Hedayat (2016) in their research showed that authentic leadership through the mediating role of trust can influence the organizational variables, including organizational commitment.

According to the result of first sub hypothesis, transparency of relationship has direct and positive impact on organizational trust and its value is equal to 0.54.

Also, about 7.29 percent of the variance of organizational trust by transparency of relationship is explained. This component because can be closer the level of leaders - followers is more important. In fact, according to Gardner et al (2005) compared the willingness to share information and ideas, the proper exposure, and express higher levels of reliability high, some factors are transparent relationship and causes employees to be able to form a more accurate assessment of competence, ethics and their leader (Norman et al., 2010).

According to the results of the second sub hypothesis, inner conscience has direct and positive impact on organizational trust and it value is equal to 0.43. Also, 18.8 percent of the variance in organizational trust by inner conscience is explained. In fact, the authentic leadership of an internal reference point for morality, a sense of right and wrong, or what some have called it a moral index. Inner conscience aspects, is a process where your authentic leadership values, intentions and coordinate their actions, so that between the governor and the results of a compliance and coordination. This leads to an increase in employees' organizational trust (Mirzaeian et al., 2016).

According to the results of the third sub-hypothesis, balanced processing has direct and positive impact on organizational trust and its value is equal to 0.48. Also, 23.6 percent of the variance in organizational trust by balanced processing is explained. Authentic leadership is able to analyze all the information about them. In this case the simultaneous processing of positive and negative attitudes and judgments about them refers resolutions. It features authentic leadership to help them avoid rash judgments and prejudices and intolerance and realistic view of their assessments apply. This feature helps to create justice and trust in the organization (Mirzaeian et al., 2016; Qane Nia, 2014).

According to the results of the fourth sub-hypothesis, self-awareness has direct and positive impact on organizational trust and its value is equal to 0.61. Also, about 38.3 percent of the variance in organizational trust by self-consciousness is explained. Self-awareness helps leaders energy, work and apply their resources are targeted for further development and more effective guidelines for employees regarding the improvement, empowering and giving them. This self-awareness is the leaders who were in the path of personal growth and development and welcome feedback from employees in the organization. Therefore, authentic leadership cannot be trusted to know their causes (Mirzaeian et al., 2016).

According to the results obtained from the fifth sub hypothesis, transparency if relationship has direct and positive impact on organizational commitment and its value is equal to 0.35. Also, around 12.7 percent of the variance in organizational commitment by transparency of relationship is explained. Transparency about authentic leadership, cause an open and transparent relationship with the leadership of their employees. Channels of communication open and transparent relationship allows employees greater confidence in their leaders. Staff makes themselves known member of the organization, have aligned themselves with the goals and vision, and increase their efforts to achieve organizational goals (Qane Nia, 2014).

According to the results of sixth sub hypothesis inner conscience has direct and positive impact on organizational commitment and its value is equal to 0.31. Also, about 10.1 percent of the variance in organizational commitment by the inner explained. Conscience/moral leaders internalized an important role in job performance followers. It makes moral leaders not to think about the misuse of staff, the tasks entrusted to them to be fair and realistic, at the time of the problems and crises of support staff, always by fairness, justice and morality in relation to work and

meet the staff. In total, these features and behaviors can lead to increased organizational commitment (Qane Nia, 2014).

According to the results of the seventh sub hypothesis suggests a balanced processing has direct and positive impact on organizational commitment and its value is equal to 0.31. Also, about 10.1 percent of the variance in organizational commitment by balanced processing is explained. When employees feel that leaders are processed simultaneously positive and negative information and do not spend bias in their judgment: first, to feel more perceived fairness; second, their tendency is more towards leadership; thirdly, more intrinsic motivation that ultimately leads to increased organizational commitment (Qane Nia, 2014).

According to the results of the eighth sub hypothesis self-awareness has direct and positive impact on organizational commitment and its value is 0.37. Also, about 13.8 percent of the variance in organizational commitment by self-awareness is explained. Because authentic leaders are aware of the strengths and weaknesses of their own and welcome feedback from employees on their understanding that it would be influence on development goals and prospects for their business and employees under their follower (Qane Nia, 2014).

## 7. Conclusion

In order to benefit from increased research and prepare managers and leaders of Ghavamin Bank below practical recommendations provided.

1. The part of the nature of the formation and development of authentic leadership is based on stories and personal narratives leaders.

For this purpose it is necessary to explore opportunities for leadership development programs to be provided about the stories of people's lives. In particular, it would be a considerable help to develop self-consciousness leaders.

2. Development of conscience and moral challenges they face in the leadership through the use of approaches such as providing instructional videos or scenario.

3. The use of role models, positive role model, Mrshdyt, coaching and experienced leaders. Short periods of training and web-based training courses.

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## NATIONALISM AND FUNDAMENTALISM IN WEST ASIA

<sup>a</sup>FARIBA RAHIMI TAGHANAKI, <sup>b</sup>BAHRAM YOUSEFI

<sup>a</sup> M.A. Student of Politic Science, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

<sup>b</sup> Assistant Professor, Faculty Member, PhD of International relations, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

Email: <sup>a</sup>frahimitaghanaki@gmail.com,  
<sup>b</sup>bahram.yousefi.by@gmail.com

**Abstract.** Arabic nationalism was affected by Islamic reformism raised by ideologists like Jamaluddin Afghani, Mohammad Abduh and Rashid Reza was another branch of Islamic reformism and fundamentalism and Hassan al-Banna and Seyyed Qotb were raised as spokesman of that. Islamic fundamentalism was raised for the first time against created challenges of nationalism at 1960. Meanwhile these countries failed in their modernization and they had suffered of threats and challenges such as Islamic opposition and the crisis of legitimacy and political authority. Threat is widely regarded today to international security. This threat is from non-state actors such as terrorist actors. One question is raised here what is the risk of this group for the region, especially Asia? And also it has been tried to noting the dimensions of the crisis.

**Keywords:** nationalism, fundamentalism, Islamic government, terrorism

### 1. Introduction

Nationalism as mainstream of ideology in most Muslim countries was in order to expedite the formation of modern national state in the region and this nationalism to traditional ideology of Islam in secularization policy has been created as an important file of renovation in countries of the region. According to these changes countries of the region are placed in various situations. Countries with the separation of religion and state, countries that have integrated religion and state and they have been governed as the Kingdom that has been led to the downfall of Islam in policy. And countries that have gone to secularization in relation with developing ideology of politic system, party organizations, institutes like department and... by reduction of Islam traditional position. In these countries legal system and the education system have been stabilized. Done reformations of economic renovation and reformation of national economy bring deep changes in structures and relations and life style in Islam world and traditional norms of Islamic economy and ethic have been affected by secularization. Development of nationalism and reduction of Islamic viewpoints are seen in this region. Production of the Arab League and dealing with Israel and the policies of Gamal Abdel Nasser in Egypt and the presented pan-Islamism by Saudi Arabia can be named as some of made changes in nationalisms which all of them have been finished to detriment for all Islamic countries. During the struggle of Arabs and Israel the Arabic nationalism was applied as an ideological weapon against Israel (Zionists) and western imperialism by Arabic countries.

In politic evolution of west Asia it can be said that relations between Islam and modern nationalism can be considered from the date of Islamic reformism which the source of that is nationalism and Islamic politic thoughts. Influence of Islamic reformism to nationalism and Islamic politic thoughts to is obvious that its result is promoting rational revision and reformation of Islamic society and opposition to foreign invasion and modern secular nationalism with an emphasis on tradition. Jamaluddin Afghani is one of the first people who was active in this field that this thoughts were going on among Islamic nationalism and reformism. Muhammad Abduh and Rashid are other people who did some politic reformations and thought on the field of relation between religious identity and national identity that they promoted Islamic fundamental ideology and politic theory differ from secular nationalism which has been led to production of Islamic fundamentalism (shuzhi, 1992). Nationalism in Islamic countries of the region was begun after attach of colonialism and downfall of the Ottoman Empire. John Esposito the famous researcher believes that appearance of

Islamic nationalism in the region is the result of interaction of following forces.

- Destruction of the Ottoman Empire after the First World War and the appearance of the modern nation and state.
- Development of independence movements with the aim of silent development to political and religious goals of western imperialism.
- Started movements by Jamaluddin Afghani and his followers Muhammad Abduh and Rashid Rida (Esposito, 1984, p59).

Certainly internal crisis as a result of the collapse of the Ottoman Empire and the imposed economic, military, political and cultural pressures of western countries can be named in the creation of sense of legitimacy and survival and identity crisis to the Arab world. In this meaning it can be said that nationalism had been in the response to western imperialism and European colonialists' government. We observe in these countries that many national liberator leaders have received modern western training assistances and affected by modern western nationalism and they had been emanated from French Revolution, equality and brotherhood freedom and modern western ideologies especially in political and democracy fields, constitutional government, the parliamentary system and individual rights. These are against the ideologies of politic Islamic society (nation) and common beliefs. The concepts of state and nation which are advocated by modern nationalism, are not based on religious beliefs and also they are different in language, ethnicity and history (Esposito, 1999).

As a result it can be said that secret war between national and religious loyalty exists in political arena of the region as the relations between nationalism and Islam. Arabic nationalism, Turkish nationalism and Iranian nationalism are existing nationalisms in the region which have similar but different attitudes to Islam. Arabic nationalism tried to introduce Islam as a cultural and functional resource from Arab nation in the first half of the 20th century which creates consistency between Islam and nationalism. But Arabic nationalism of dominant region on Egypt and Syria; sees itself close to national culture and Islam is not considered so much and yet by showing some of Islamic works different from Islamic ideology and culture (Lius, 2001).

After 1960 and following the created problems the Islamic resurgence nationalism is as a form of political discourse competing with counterparts in liberalism secular, socialism and nationalism (Ibrahim, 1980). Among this Egypt can be mentioned as the main center of Arabic nationalism which has been threatened by Muslim Brotherhood and following the assassination of President Anwar Sadat in 1981. After that we face a regime in Iran which implement the national reformations and it is known as Reza Khan Reformations. After Iran we face Baath party formation in Iraq and Syria. Also after the cold war, the Islamic Renaissance culminate in some countries in the west Asia, north Africa even in some areas of Asia especially Algeria, Sudan, Egypt, Morocco, Tunisia. Also we face revival of Islamic forces in moderate countries such as Saudi Arabia and secular countries like Turkey. We face ending the Islamic Renaissance after Mid-1990. So in ideological future in west Asia struggle between nationalism, modern ideology and Islam, traditional political culture is considered as key factor as renovation.

### 2. Islamic fundamentalism challenges against nationalism (Liu, 2001)

#### 2.1 The conflict between national and religious identity

Nationalism consistent with national identity includes national culture and political identity which creates formation of modern state and nation. Nation is propounded as its main body and national identity is propounded as main underlying in creation of political and social necessities. However the religious identity

emphasis on nation which pay attention to universal religious community.

## 2.2 state domination and god domination

The modern nationalism believes that domination is people and in this among this domination is as illustration movement favorer of state domination but oppositely Islamists believe to god domination which argue that god is independent and each type of domination against god is an illegal domination. Dealing with secular nationalism in the region is one of the purposes of believer to Islamic domination. This fundamentalism believes to form an Islamic state and its combination in policy and religious in this meaning the Islamic state is a state in accordance with the religious law.

## 2.3 opposition of secularization and Islamists

In this among secularization believes to separation of state, law, education and religion. While Islamists are integrating the religion and state with integration of policy, religion and the combination of law and religious education and they insist on integration of policy and religion. Oppositely these nationalists in favor of secularization believe that social and political frameworks should be coincident to secularization. Appositely Islamists believe that this is a type of westernize and creation of chaos and disorder in society. Islamic renovation is the only unique way to the Islamic world and different from modern nationalism. However it seems that the foundations of Islamic social movements for Islamic revival have made impedimenta in development due to lack of national development theory, bafflement in the type of development, identity crisis of political legitimacy and social cultural identity. In relation to political legitimacy and creation of the national unity ideology it seems that some states of Muslim countries are not interested in this work and also they aren't successful in their works in return great enthusiasm can be observed for despotism in this type of countries. This is dominant yet especially in some countries with kingdom state, military and semi-military autarchies in the Islam world (Esposito, 1999). In fact Islamists emphasis on god domination as the tradition and religious politic culture of Islam is considered as political power. This cultural system of religion and policy exists as a historical tradition in social mentality (Shuzhi, 1997). This type of ideal domination is known as the return to religion and cleans up corruption which this is considered as religious policy. Islamic theories are considered different from nationalism and through evaluation of rich sources of Islamic political culture (Liu, 2000).

## 3. Opposition of national nationalism and Islam

### 3.1 structure of state and nation

The struggle is between national identity and religious identity. Struggle is between creation of Islamic and ethical culture and native culture and struggle between national ideologies and Islamic native politic culture.

### 3.2 modern legitimacy and traditional legitimacy

Struggle has been existed between modern and traditional legitimacy. We face identities, ethnic-racial groups, religions and religious sects in the region that these are in relation with deep Islamic politic culture. Immaturity of nationalism can be considered in creation of ideological space to revive Islam.

### 3.3 opposition between traditional and modern political system

Nationalism of the region can be known as a sample of western political reformations in creation of political systems which this is effective on Islam in its turn. Apart from this, some despotisms can be observed in the form of military and another form of autocracy which face many challenges.

## 3.4 political association and democracy

It can be said that lack of opposition between political association and Islamism has led to creation of social anarchies by observation of amount of political association and democracy in the region especially Arabic countries. Nationalism of the region is in opposition with opponents of its Islamism because they criticize the legitimacy and authority of state. Generally it can be said that struggle between nationalism and Islam has been increased and this causes that the made renovation prevents the historical development and political development. This is consulted as a long work to solve the problems. This means that how nationalism of west region of Asia can adjust to Islamic integration. So countries of the region should clear the root of Islamic fundamentalism to can observe a prospects for peace in the region.

## 4. Appearance of terrorist groups in west Asia

### 4.1 Taliban

Appearance of Taliban in 1994 is one of important phenomenon in contemporary political history of Afghanistan, southwest Asia, Middle East and Islam world. At first Taliban had wanted unity, and clean up the country from autocratic local rulers, removing forward groups and making regularity and stability in Afghanistan. They created a system based on religious law and Sunna after achieving some victories. This group could surround some regions of Pakistan and Afghanistan in a short time even it could also seized Kabul. After capture of Kandahar in 1994 they asked people to do some behaviors. Such as not shaving beard, the absence of women in the streets without their confidant, closing cinemas and paintings. They changed cinema of Kandahar to mosque and stadium of Kandahar to the center of enforcing the rulings of their courts (Mahdavi, 2006). They prevented girls and women from education and they know radio and television inconsistent with Islamic rites. After long times the condition became difficult and men who shaved their beard were incarcerated from one day to one month (Hashemi, 2001: 23). Including some important factors of get into power of Taliban can be mentioned disability of Clerics leaders to form an inclusive and national state with presence of ethnic minorities, existing struggles between Clerics and Taliban continued until 1996 which led to occupation of Kabul. And supports of Rabbani from Taliban became a reason for creation of Taliban,

Rabbani was willing to ally with Taliban he was not willing to compromise with Pakistan in no way which was trying to take power from him. Unaware that this soon Taliban become a power that Kabul take his power that in this case Laurel Qurna believes that although state of Rabbani was grateful from Taliban for expelling Hekmatyar, but soon he found that Taliban is considered a serious threat for himself too. The influence of Islamic countries neighboring Afghanistan in jihadist forces can be named as external factors in get into power of Taliban. As a result these intervention led to movement of these groups and Taliban increased its power. Pakistan and Arabia are including these countries. After independence of Afghanistan many numbers of jihadist forces have been deployed in Pakistan. State of Pakistan was not satisfied to decision of power in Afghanistan by Rabbani's forces and without any consideration and hesitation they interfered in the affairs of the Mujahidin's state and used their own forces to interfere in internal affairs of Afghanistan and destroy Mujahidin's state (Andishmand, 2007). Support of Pakistan's military intelligence from Hekmatyar by using financial and armaments methods in order to attack on Kabul is one of supports of Pakistan. Hekmatyar could destroy a part of Kabul and kill a lot of people (Seighal, 1998). Saudi Arabia was a supporter of the Afghan mujahidin since the Soviet attacks on Afghanistan. Arabia was involved on the get to power of the Taliban by financial assistance for the establishment of thousands religious schools and help to extremism and fundamentalism (Rashid, 2004).

## 4.2 other terrorist groups

The roots of this group can be attributed to early 2000. Especially by attach of United States to Iraq and downfall of Saddam Hussein in 2003 while coalition forces were trying to control Iraq Led by the United States, a group was formed named Al Qaeda (AQI) in 2004 with the launch of guerrilla war against coalition forces . Meanwhile, Abu Musab al-Zarqawi who has been announced as a terrorist by Foreign Affairs Ministry of America, he announced creation of Al Qaeda. He was making a dangerous campaign against Shiites in Iraq. But Abu Musab al-Zarqawi was killed in Air Attack of America. Abu Ayyub al-Masri was replaced in October 2005 who changed the name of group from Al Qaeda to Islamic state of Iraq (ISI) and determined Abu Omar al-Baghdadi as its leader. ISI name was selected with the aim of attracting support and patronage of Iraq's people. Finally Abu Ayyub al-Masri and Abu Omar al-Baghdadi were involved to the fate of Al-Zarqawi and killed in operations of American forces in 2010. Abu Bakr al-Baghdadi became the leader of this group and he changed the group name again to Islamic state in Iraq and Syria (ISIS). Al-Nusra Front was another involved group in Syria which was fighting against Bashar Asad in Syria and achieved some successes. Announcement of unity of ISIS group and Al Qaeda in early 2013 by Abu Bakr al-Baghdadi (Stanford, 2014) made a gap between ISIS group and Al-Nusra. Abu Muhammad Julani announced that we are not alliance with ISIS group and competition between two groups was made in order to dominance on the region. After doing some affairs in order to alliance between Al Qaeda and ISIS and Al-Nusra Front in February 3 2014 Al Qaeda announced that it has separated itself from dependence of Takfiri groups in Iraq and Syria and they believe that ISIS is not a part of al Qaeda and this was a beginning of struggle between these groups (, 2014 Sly). One of purposes of al Qaeda is to unite all Muslims throughout the region, but actions of Militant groups such as targeting civilians and the local people were against the mission of al Qaeda. But ISIS commit themselves to do behavior of strict norms which this strategy is completely different from other militant organizations in the region. ISIS in early actions killed its competitors and thousands Iraqi soldiers and 100 Syrian forces in order to attract the universal attention. And it massacred foreign nationals, including aid workers and journalists in the middle of 2014 and claimed that it has implemented Islamic punishments. Some of its actions are thong, impose ban on smoking and ban on music which are very stronger than other terrorist groups such as Al Qaeda.

## 4.3 Islamic state in Iraq and Syria

One of the most important threats which have covered a large part of west Asia is extremist Takfiri groups. This group changed its name to Islamic state (IS) after occupation of considerable lands in Iraq and Syria. One of its main purposes is making a Caliphate or Islamic state based on religious law around the world. In 29 June 2014 the leader of this group Abu Bakr al-Baghdadi introduced himself as the leader of believers and introduced Awwad Ibrahim Ali al-Badri Alsamraty as the alternate. This shows the culmination of ambition of this person. So that the last Caliphate or the downfall of the Ottoman Empire have been destroyed in the First World War. Analysts believe about potential of terrorist group and a danger that these groups can make for Asia it should be referred to history of these groups and presented an accurate analysis (Chinyong Liow, 2014). How are amount of threat and underestimate the threat of Islamic State? We should evaluate the threat realistically about reason of concerns of terrorist groups especially ISIS on the rest of Asia, because rowdies should be avoided to evaluate threat. So that in 11 September 2014 president of United States of America Barak Obama promised for strong military and political coping with terrorist groups but this issue should be analyzed in the fact of affair, because it should be referred to roots of formation of these terrorist groups which who created them?

A treat that these terrorist group has is distribution of these groups in the whole world and if United States and its allies do their task as well about this the results will be this military and political abilities of terrorist groups will be reduced in important regions such as Syria and Iraq. But this issue remains yet as a universal threat for many regions of the world such as Africa, Asia and especially the sensitive region of the Middle East. By cooperation of United States and some of powers of the regions it can be said that in some periods remains of these terrorist groups are destroyed in regions like Syria and Iraq but these groups comeback to their regions by failure and weak for this failure and this is a reason for lack of required effort of United States and its allies for a serious fight with terrorist groups.

## 5. Conclusion

Destroying the current political system in Middle East may lead to a strategic transformation. In the present time the made Interactions between Syria and crisis of Iraq are the most important challenge of the Middle East. Both states face their legitimacy following the strong challenges and controlling these interactions such as war of Takfiri groups with Bashar Asad and their refusal to accept the new condition in Iraq and contiguity of these two groups in the two country have make the region a gunpowder warehouse. The happened events from Islamic Awakening in Muslim countries of the region in 2010-2011 through opponent religious groups of western interference in countries have been caused to some groups to comply with this opportunity target Syria and Iraq. In this among it can be mentioned to the role of Islamic republic of Iran to end the crisis. Foreign policy of Iran is in a form that it is trying to maintain its regional role and applying leadership of resistance front. The purpose of Iran is destroying ISIS in the region (Zarif, 2014). Iran is willing to maintain territorial integrity and national unity in Iraq. Some states announce that this country (Iraq) should be divided into three states of Sunni, Shiite and Kurdish. The crisis that ISIS has created is the predicted and planned crisis by studying factors of entering people to this terrorist group it can be said that there are three main reasons for this matter: The first reason is fear of people and groups in the region which lead to cooperation of them. The second reason is ideological and religious support of regional ethnic groups and tribes from this group and the third reason is mental operation and advertisement of this group in order to enrichment of its supporters to form an Islamic State. One of issues that can be propounded in copying with this group is the serious consideration on unity among different religious and ethnic groups in the region, particularly Shiites and Sunnis. Unity of interfering countries in the region especially on this issue that ISIS is considered a danger for its supporter.it seems that the United States and western countries that support terrorism become close to this result that it is possible that this group gets out of the control and acts against reactionary countries of the region and especially West. For example the created crisis can be mentioned in Turkey and Kurdish groups. The informational and operational actions should be done by countries of the region to prevent the influence of this group. So that the United States is trying to divide terrorist groups and it has divided them to the good and bad terrorist. It seems that western countries are trying to use bascule of these terrorist groups along with their benefits and particularly Zionist entity.

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## COMPARISON OF THE IMPACTS OF SYNECTICS TEACHING MODELS AND BRAINSTORMING ON THE CREATIVITY OF THE STUDENTS

<sup>a\*</sup>SHADAD ABDOLLAHI KHANGHAH, <sup>b</sup>ELHAM ABOLFAZLI

<sup>a</sup> *Department of Educational Sciences, Allameh Tabataba'i University, campus of culture, Ardabil, Iran*

<sup>b</sup> *Department of Educational Sciences, Allameh Tabataba'i University, campus of culture, Ardabil, Iran*

Email: <sup>a</sup>s.abdolah.kh4@gmail.com

<sup>b</sup>Abolfazli\_elham@yahoo.com

**Abstract.** The aim of this study was to compare the impact of innovative teaching models and brainstorming on the creativity of elementary school students in Ardabil city. The research methodology is "quasi-experimental" and the goal of it is "applicability". Data collection method for this study was based on field and classroom selections. Data collecting tool in this study was Torrance creativity questionnaire that its reliability is calculated by using Cronbach's alpha equal to 0.81. The analysis of the collected data, SPSS software was used and tests which are used in this study were the co-variation analysis and T-test in two independent groups. The results showed that innovative method have a greater impact on students' creativity than brainstorming method.

**Keywords:** *teaching models, brainstorming, students' creativity, SPSS*

### 1. Introduction

By Giving the central role of the state educational system in training the younger generation it's responsibility is doubled in this realm and in comparison to other institutions and the only ability which could equip students in future with the growth of human capabilities, is creating related skills and strengthen abilities of the creative spirit in them. The main objective and basic concern of the educational system, is foster creativity and creative education in students then first important step in doing so, is identifying the foundations of creativity and its applications (Hosseini, 2003).

Robbins has expressed creativity the ability to combine ideas in a unique way or creating a connection between the ideas (Darzi Ramandi et al. 2015).

One of the active and innovation-driven methods is Synectics teaching Method. Like other forms of innovative methods, it helps to flourish students creativity by educational guidance, so that, as in this method life skills is taught by using the simile, metaphor and analogy, therefore, students have more freedom in response to questions of this lesson and this will lead to the development of skills of students based on creativity and innovation (Aqazadeh, 2009).

In the teaching of brainstorming, the teacher gives examples to students and asks them to express every solution to the problem which comes to their mind. The main solution cannot be expressed before providing different solutions by all the learners (Mellow, 1996 was quoted the Madandar Arani and Kakya, 2009).

Teaching creativity by Synectics and brainstorming method are among the ways that can increase people's creativity. The method of brainstorming also as a way to foster creativity has created a certain effective steps. Teaching creative thinking through brainstorming and Synectics method can be effective in increasing the creativity and problem-solving ability.

The main objective approach to creative thinking in students is that teachers can understand students' mental structures and to change their current plan. These changes include: identifying and removing barriers to learning (misunderstanding and shortcomings), create arguable ideas based on factual evidences and spread more accurate ideas, upgrading skills and improving the point of views of teachers and professors in the field of

active teaching methods, to teaching-learning process and increase vitality and joyous educational atmosphere, promoting self-direction in learning, understanding goals and self-assessment ability between teachers and students, group cooperative learning in teacher and student and increase the power of scientific attitude and achieve higher levels of cognitive domain and strengthen the ability of interpretation and judgment in the students are other purposes of this training method. If a learner becomes familiar with his knowledge, resources and research methods during his studies, he will create new materials and write, criticise and review ideas on the training, therefore at the end of the course can be an efficient and effective person in any environment, and can produce new ideas and knowledge. Amiri and Noruzi (2013) in a study have indicated that the method of brainstorming in creative thinking skills course, has a significant impact on increasing the creativity of students. Momeni et al. (2011) also presented that the use of Synectics teaching model causes in the growth and development of students' creativity. Also, applying this model brings about improvements in fluency, flexibility, originality and elaboration of students' thinking.

The results of Darzi Ramandi et al. (2015) also indicated that Synectics approach on the academic achievement of students in social studies lesson has a positive effect on increasing the amount of components of creativity (fluency, originality, flexibility and elaboration). The Results of the Madandar Aran and Kakya (2009) indicated that teaching creativity by method of brainstorming is confirmed on the issue of developing elaboration but on the other components, there isn't any significant difference between the two methods of brainstorming and guided discovery. However, with regard to previous researches, this study attempts to measure the creativity of elementary students in Ardabil city based on two models of brainstorming and Synectics.

Therefore the following assumptions were investigated in this study:

The impact of Synectics teaching method in comparison to brainstorming method is different on the fluidity of creativity of the students.

The impact of Synectics teaching method in comparison to brainstorming method is different on flexibility of the creativity of the students.

The impact of Synectics teaching method in comparison to brainstorming method is different on the initiative thinking of the students' creativity.

The impact of Synectics teaching methods in comparison to brainstorming method is different on the development of students' creativity details.

### 2. Methodology

The target population of this study is included all elementary school students in Ardabil city that are equal to 3,100 members. In this study, 40 students were randomly selected from one of the elementary schools in Ardabil city and homogenization was carried out according to their average score of their last semester and they were divided into two 20 students classes and to collect data we used the standard 60-item Torrance verbal creativity questionnaire that measures four-components of fluency, initiative, flexibility and elaboration. In order to ensure the reliability of the questionnaire, 20 questions before final implementation, was conducted randomly among participants and after the collection, the amount was calculated by Cronbach's alpha equal to 0/81.

After the equivalent of two classes of students in accordance with the assumptions of statistical control, through academic achievement, scholars to study the impact of independent variables on the dependent variable have thought learning methods to both teachers of two classes and during two pre-consultation meeting the scholar offered the training program to them in order to make them run it for 2 months in class.

In the first session Torrance creativity questionnaire as pre-test was conducted in both classes during the implementation of Synectics teaching and brainstorming method as independent variables, the scholar communicated with the teacher and was present in both classes so conduct them in difficulties then at the

end of two months, the same papers as the post-test questionnaires were conducted in both classes. One of the preconditions for the use of co-variation test is examination of normal statistical distribution of variables. For this purpose, by using the Kolmogorov-Smirnov test, the normality of the variables has been examined and confirmed .

**3. Findings**

Hypothesis 1: The impact of Synectics teaching methods in comparison to brainstorming methods is different on the fluency of creativity of the students.

Table 1: One-way-variance analysis

The intensity	The significance level of p-value	amount of F
0.61	0.000	51.253

Table 2: The mean of pre-test and post-test examinations

p-value	$\alpha$	the amount of t	Standard deviation	Mean of replies	Number	group	level
0.711	0.05	1.45	6.01	28.14	20	Control	Pre-test
			6.94	29.96		the experiment	
0.000	0.05	8.05	7.01	31.45	20	Control (brainstorming)	Post test
			8.26	12.39		Experiment (Synectics)	

According to the p-value it is concluded that the fluency between the students in both Synectics teaching and brainstorming, has a significant difference that according to the amount of mean of fluency score in post-test subjects we can see that in the Synectics method, Fluency score of students are more than

brainstorming that this effect is also higher due to the value of 0/61.

Hypothesis 2: The impact of Synectics teaching methods in comparison to brain storming methods is different on flexibility of creativity of the students.

Table 3: One-way-variation analysis

the intensity	The significance level of p-value	Amount of F
0.598	0.000	22.31

Table 4: pre-test and post-test of flexibility

p-value	$\alpha$	the amount of t	Standard deviation	Mean of replies	Number	group	level
0.355	0.05	1.44	6.56	23	20	Control	Pre-test
			5.33	21		the experiment	
0.000	0.05	19.67	5.82	27	20	Control (brainstorming)	Post test
			7.19	34		Experiment (Synectics)	

According to the p-value it is concluded that amount of flexibility between the students in both methods of Synectics and brainstorming, there is a significant difference which according to mean score of amount of flexibility of subjects at post-test, we realize that in the Synectics teaching method, students flexibility

score is more than brainstorming that this effect is also higher due to the large amount of value 0/598.

Hypothesis 3: the impact of Synectics teaching methods in comparison to brainstorming method is different on the initiative thinking of the students' creativity.

Table 5: One-way-variance analysis

intensity	The significance level of p-value	Amount of F
0.621	0.000	21.44

Table 6: Statistical Indicators of innovation

p-value	$\alpha$	The amount of t	Standard deviation	Mean of replies	number	group	level
0.558	0.05	1.39	6.55	32	20	control	Pre test
			5.28	33		experiment	
0.000	0.05	16.42	6.59	36	20	Control (brainstorming)	Post test
			6.19	41		Experiment (Synectics)	

According to the p-value it is concluded that on the initiative level of students between the two methods of Synectics teaching and Brainstorming there is a significant difference which by considering the subjects' post-test mean score of initiative participants we realize that in Synectics approach, the initiative

thinking of students score is higher than brainstorming that this effect is also more due to the large amount of 0/621.

Hypothesis 4: The impact of Synectics teaching methods in comparison to brainstorming method is different on the detail elaboration of students' creativity details.

Table 7: One-way-variance analysis

intensity	Significance level of p-value	Amount of F
0.711	0.000	26.78

Table 8: statistical indicator of detail elaboration

p-value	$\alpha$	Amount of t	Standard deviation	Mean of replies	number	group	level
0.712	0.05	0.69	6.45	24	20	control	Pre test
			5.79	25		experiment	
0.000	0.05	18.28	6.77	30	20	Control (brainstorming)	Post test
			6.46	34		Experiment (Synectics)	

According to a p-value it is concluded that between the detail elaboration score of students in two methods of Synectics and brainstorming, there is a significant difference which according to the mean score of detail elaboration of participants at post-test we can notice that score of detail elaboration in the Synectics method is more than brainstorming and this effect is higher also due to the large amount of 0/711.

#### 4. Discussion and conclusion

- Results of first hypothesis indicated that in Synectics teaching method, students' fluency score increases more than brainstorming method. Fluency or fluidity, expresses the mental ability of relationships between idea and thought which is measured based on the number of ideas or solutions and the ability to provide multiple answers to a given location at a given time, students in Synectics method without any fear of providing wrong answers, participate in learning process and practice giving multiply answers, so that's why students in the experimental group in terms of fluency have a better position compared to the control group. These results are consistent with researches of Amiri and Noruzi (2013), Momeni et al. (2011), Darzi Ramandi et al. (2015).

- The second hypothesis results indicated that in the Synectics teaching method, students' flexibility score increases higher than brainstorming method. The flexibility is the ability to think in different ways to solve a new problem, students in the traditional way were busy on memorization and learning stereotypes and didn't have flexibility and providing answers in other ways, but in Synectics teaching they, freely and without fear, practice different ways of thinking and responding to new issues, therefore, this method increases the flexibility for students. The results of the research are consistent with results of Amiri and Noruzi (2013), Momeni et al. (2011), Darzi Ramandi et al. (2015).

- The third hypothesis results indicated that in the Synectics teaching method, the score of initiative thinking of students' increases higher than brainstorming method. Initiative thinking is the ability to think in an unusual way and contrary to common habits that comes with the unusual, strange and subtle answers. Thus, in the teacher-centered teaching and learning methods in traditional ways, students are empty containers whom the teacher has a duty to give content and on-side-transfer them and students do not have the guts to talk, but to call the stereotype answers that the teacher previously has taught to them, so we do not expect the initiative thinking. But in Synectics teaching method, students learn how to think for metaphorical and analogous types of work. They use analogies to solve new problems and new ideas and express their opinions freely and find new ideas.

Therefore Synectics teaching method enhances the students' initiative thinking ability. These results are consistent with findings of Amiri and Noruzi (2013), Momeni et al. (2011), Darzi Ramandi et al. (2015).

- The fourth hypothesis results indicated that in Synectics teaching methods, students' score increases higher than brainstorming on detailed elaboration of students. The ability to complete a thought and add details to it is called detail elaboration. Unlike ordinary people who are always looking for solutions and carefree ways and use easy to traverse ways, creative people, selects complexity, and is looking for an easy solution for them. In traditional teacher-centered approaches, the teacher provides full content and also evaluates them. As a result, students are not given any opportunity to think, vice versa in Synectics teaching ways not only contents are not provided completely, but students are actively participate in learning by using metaphor and analogy, discovery and description of concepts, and are accurate on their ideas and thoughts and complete them by linking them with other ideas, so that introduce their new ideas. Thus students expand their practice. In this way students perform better in developing content. These results are consistent with findings of Amiri and Noruzi (2013), Momeni et al. (2011), Darzi Ramandi et al. (2015).

#### 5. Suggestions

- According to the obtained results and the positive impact of Synectics teaching method it is proposed to increase training students in this method rather than listening to the teacher and learning the lesson by teacher and finally memorizing the content and responding parroting. Through descriptions, similes and analogies, they can have an active learning process and production of creative ideas; foster their creativity, by using what they have learned in the early stages of innovative methods, therefore helps in their academic achievement.

- The use of different methods and techniques fosters creativity (brainstorming, research skills, etc.) in the teaching process, that fruitful results will be achieved in various aspects such as the development of creativity, improving the teaching-learning process, communication and interaction in the process of revision training.

- The existence, nature and impact of this informal and non-codified aspect "hidden curriculum" of school should be completed and understood by administrators, teachers, parents, students and community members. Any official attempt at designing curriculum development should turn its attention to all aspects of the hidden curriculum. Such an effort, particularly in defining the overall goals and behavioral objectives of the emotional realm and the realm of interpersonal contraction,

learning opportunities that have major importance in facilitating socialization process, particularly in relation to moral development and character has to be taken into consideration.

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# RANKING THE FACTORS THAT INFLUENCE ENTREPRENEURSHIP DEVELOPMENT IN DEPARTMENT OF NATURAL RESOURCES AND WATERSHED MANAGEMENT IN SISTAN AND BALUCHESTAN PROVINCE USING THE AHP METHOD

<sup>a\*</sup>FATEMEH RIGI, <sup>b</sup>EBRAHIM HADDADI, <sup>c</sup>ALAMEH KEIKHA

<sup>a</sup>M.A student of educational administration, Department of Management, Islamic Azad University of Zahedan, Zahedan, Iran

<sup>b</sup>Assistant Professor, Department of Management, Islamic Azad University of Zahedan, Zahedan. Iran

<sup>c</sup>Faculty member, University of zabol, Zabol, Iran

Email: <sup>a</sup>fatemeh.rigi.fr@gmail.com,

<sup>b</sup>brahim.haddadi.eh@gmail.com,

<sup>c</sup>alameh.keyha.ak@gmail.com

**Abstract.** Nowadays, due to the fact that business condition has become more competitive, organizations try to be more entrepreneurial and have higher productivity and efficiency. Using Analytic Hierarchy Process, three main factors and for each of them some sub-indices are determined to prioritize the factors and indicators that are related to factors affecting the development of entrepreneurship. The main achieved results include: in terms of structural factor, information technology has the greatest impact on the development of entrepreneurship. In terms of behavioral factors, the characteristics of employees has the greatest impact on the development of entrepreneurship. Finally, some recommendations are presented for research improvement.

**Keywords:** structural factors, behavioral factors, contextual factors, development of entrepreneurship, Department of Natural Resources and Watershed Management

## 1 Introduction

Nowadays, due to the various events that have occurred at the social, cultural and business levels, special attention has been paid to entrepreneurship and entrepreneurs in different countries. Reinforcing organizational entrepreneurship in the current organizations and paving the way for its development is considered as a means for the economic progresses, especially in developing countries. (Hadizadeh Moghaddam, 2010) Entrepreneurship is a concept that has existed since the beginning of human creation. Entrepreneurship can be regarded as the center of work, development and progress in the modern era. Without sufficient attention to "developing an entrepreneurship culture" it is not possible to achieve growth and development indices, which can be achieved through changes in the process of production, efficiency and technical and industrial progress in the economy. In the transition from the traditional to the industrial stages, it is necessary to pay special attention to the capacity of individual entrepreneurs in taking advantage of natural resources and modern technologies, because they employ new methods in the market to prepare themselves for optimum use of tools and attaining high-quality products and services (Dariani, 2011).

Entrepreneurship is the main pillar of economic growth in any country. Entrepreneurship can be strengthened by instilling correct entrepreneurial skills at the training stage. Entrepreneurship is one of the main entrances to economic development. Entrepreneurship can be considered a continuum which shows the intensity of entrepreneurship in an individual or company (Perakash et al., 2015).

Undoubtedly, the development of entrepreneurship involves several factors that should be identified and determined in terms of affectivity. The Department of Natural Resources and Watershed Management in the provinces, as part of the Ministry of Agriculture, play an important role in the development of cities and countries. It is necessary to pay attention to this issue and the entrepreneurship development (ibid).

## 2. Literature Review

### 2.1 Entrepreneurship

Entrepreneurship derives from the French word "Entrepreneur" which means "commitment". According to Webster's Collegiate Dictionary, an entrepreneur is a person who organizes, manages and undertakes the risks of an economic activity. The word entrepreneur was invented in French language long before the emergence of the general concept of entrepreneurship in modern language. In the early sixteenth century those who would lead the military mission were called entrepreneur. Since then this word has been used for other types of risks, though with some limitations. Since about the year 1700, the term entrepreneur has been frequently used to refer to the French government contractors involved in the construction of roads, bridges, ports, and facilities (Cochran, 2012).

Entrepreneurship is the process of discovering new ways to combine resources (Grace and Ihomo, 2013). Morris (1996) has defined the relationship as the relationship between entrepreneurs and the environment and the role of government in building the economic, political, legal, financial and social structures. Reynolds et al. (1999) have defined entrepreneurship as any attempt to create a new business or new risks, such as self-employment, organizing new business or expanding an existing business by an individual, a team or an already established business. Hindel and Rushworth (2002) defined entrepreneurs as having access to and understanding and exploiting the opportunities. Gartner and Carter (2003) defined entrepreneurship as an organizational phenomenon, especially as an organizing process (Harley, 2009). Kerry and Toric (2003) defined entrepreneurship as behavioral characteristics of individuals. Lowry (2003) defined entrepreneurship as an economic system that includes entrepreneurs, legal and institutional arrangements, and government. Stevenson et al. believe that entrepreneurship is the process during which opportunity are observed by individuals (for themselves or for the organizations in which they work) regardless of the resources that are under their control (Harley, 2009).

The European Union defines entrepreneurship as the ability of people to create ideas and to turn them into reality. This includes creativity, innovation and risk taking. Meanwhile, the entrepreneurs should be supported to be able to recognize and exploit the opportunities better. Training entrepreneurs is one of the means that enables them to take advantage of opportunities. The best time to start the training is the primary school (Minniti, 2008).

#### 2.1.1 Entrepreneurship Development

Development of entrepreneurship is a complex, long-term and comprehensive process that plays an important role in the growth and economic development of countries. Today, entrepreneurship is the most strategic and important tool for economic development in the developed countries (Rabiyi and Nikraves, 2014).

In the literature of entrepreneurship, the development of entrepreneurship contains 9 levels;

- A. Micro level
- B. Macro level

Micro level includes nine categories of policy making in terms of government investment and programs. The first policy is education that covers the development of entrepreneurship. It includes improving and balancing the curriculum in the higher education and the business environment. The second policy is the structures that include all government programs in terms of business loan development or risky investment, and Internet access. The third policy is entrepreneurship culture that involves all government programs regarding social entrepreneurship and

cultural development for new entrepreneurs, such as creative economic development (Hoffman, 2011).

### 2.1.2 Factors Affecting the Development of Entrepreneurship

#### 1. Organizational Factors

Moghim (2005) divides the factors that influence organizational entrepreneurship into three categories:

A. Entrepreneurial structural factors; including items such as organizational structure, organizational strategy, payroll systems, financial and budgetary systems, information systems, research and development system, control system, and monitoring human resources systems, processes and methods.

B. Entrepreneurial behavioral factors; including issues such as organizational culture, motivating human resources, leadership style, characteristics of staff and managers, human resource training, and human communication system.

D. Entrepreneurial contextual factors; including issues such as relationship with the client, political and legal environment, social and cultural environment, and administrative environment (Moghim, 2004).

#### 2.2 Research Background

Considering the role and significance of entrepreneurship and the brilliant history of entrepreneurs in the development of many countries, and due to several economic problems in our country, promotion and dissemination of the concept of entrepreneurship, and providing an infrastructure to support entrepreneurial culture are of vital importance and necessity. Entrepreneurship is a process that takes place in different environments and places. It involves some changes in the economic system through innovation by people who react to economic opportunities that create individual and social value (Ecole Vanak, 2010).

Entrepreneurship is a process that leads to satisfaction or new demand. Entrepreneurship is the value creation process through formation of a unique set of resources to take advantage of the opportunities.

There are various studies about entrepreneurship development and the factors that influence it. Some of them are presented in the following section:

Marioni and Mirzaneti (2015) studied the development of entrepreneurship in the creative industries in Indonesia. They found out that the development of entrepreneurship in the creative industries can be strengthened through assistance and cooperation of other institutions, and for solving business problems the government policy makers should develop and improve inefficient government bureaucracy, corruption, financing, poor infrastructure, and trained work force. Jelonek (2015) examined the role of innovation in the development of electronic entrepreneurship. The research asserted that customers play the main role in terms of innovation. In addition, the present study confirmed the hypothesis that companies rely heavily on the implementation of electronic entrepreneurship. Thus, strengthening their position in the virtual market is important. Rajae et al. (2011) examined the factors influencing the development of entrepreneurship in agricultural production cooperatives in Zanjan. The research was a descriptive survey study. The results showed that from the standpoint of managers the major factors affecting entrepreneurship in the cooperatives include financial support and tax cuts, granting of bank loans, creating special conditions for entrepreneurs and providing documentation for international entrepreneurship development.

Hosseini and Bozorgi (2016) examined the factors affecting entrepreneurship on the establishment and development of organizational entrepreneurship opportunities. The results suggested that the structural factors in the General Office of Ports and Maritime of Mazandaran Province had no impact on organizational entrepreneurship opportunities and that there is no relationship between them. The contextual factors in the General Office of Ports and Maritime of Mazandaran Province had an impact on organizational entrepreneurship opportunities, and there is a relationship between them. Behavioral factors in the General Office of Ports and Maritime of Mazandaran Province had an impact on organizational entrepreneurship opportunities and there is a relationship between them. Jamshidi et al (1394) examined the factors affecting the development of entrepreneurship in the agricultural production cooperatives of Minoodasht city. The results showed that the average total score of the entrepreneurship of the studied population is 2.585 with most people (2.58) being in the weak or very weak categories. It was also found that education level, number of shares, previous experience in the field of entrepreneurship, income, and experience in agricultural production cooperatives have a positive impact on entrepreneurship. Ghanbari et al (2015) examined the influential factors on the development of entrepreneurship in rural tourism. The results showed that factors associated with the strengths and weaknesses of development of entrepreneurship in tourism in the studied villages had the highest rating. Being located on the main roads of the country is an asset, lack of a strong culture of entrepreneurship in the local residents and negligence and failure of the authorities are weak points, availability of diverse ways of making money is an advantage, and finally destruction of ancient monuments and historic buildings and changing the usage of the land and landscape in the villages are among the most critical threats. Eftekhari et al (2014) analyzed the factors affecting the development of tourism entrepreneurship. The results showed that from the viewpoint of all 9 groups, the economic factor has the highest average and is more important in the development of entrepreneurship. Hosseininia et al (2015) examined the environmental factors influencing the development of the technological entrepreneurship of electric power industry by using PESTLI technique. The political, economic, social, technological, legal and international factors were studied. The results showed that, with a very high average rating than other factors, economic factors are the most effective dimensions among the factors. Then the ranking of international, legal, executive and political factors are close and finally technological and social factors are the least influential factors.

Therefore, it can be concluded that for Marion and Mirzaneti (2015), Rajae et al (2011), Lerner and Hub (2010), and Hosseininia and Bozorgi (2014) financing, government financial support, and providing financial support are the factors affecting organizational entrepreneurship development.

Rajae et al (2011), Hussein and Bozorgi (2016), and Hosseininia et al (2014) believe that legal factors, bank loans, environmental factors and political factors influence the development of entrepreneurship.

Hosseininia et al (2014), Rajae et al (2011), and Hussein and Bozorgi (1395) believe that environmental and social conditions are the factors that affect the development of entrepreneurship.

The present research and the examined factors to some extent are similar to the studies of Hosseini and Bozorgi (2016). They have studied the effect of the triple factors, while the present study examines the subcomponents of each factor individually.

### 3. Research Methodology

#### 3.1 Research Method

In terms of method, the present study is a descriptive-survey research and in terms of objective is an applied research. Statistical population of the study is 130 people who are all

employees of the Department of Natural Resources and Watershed Management in Sistan Baluchestan Province in 2015. The study used Morgan Table to determine the sample size which included 98 people. Using Analytic Hierarchy Process three main factors and for each of them some sub-indices were

determined to prioritize the factors and indicators that are related to factors affecting the development of entrepreneurship.

3.2. Research Model

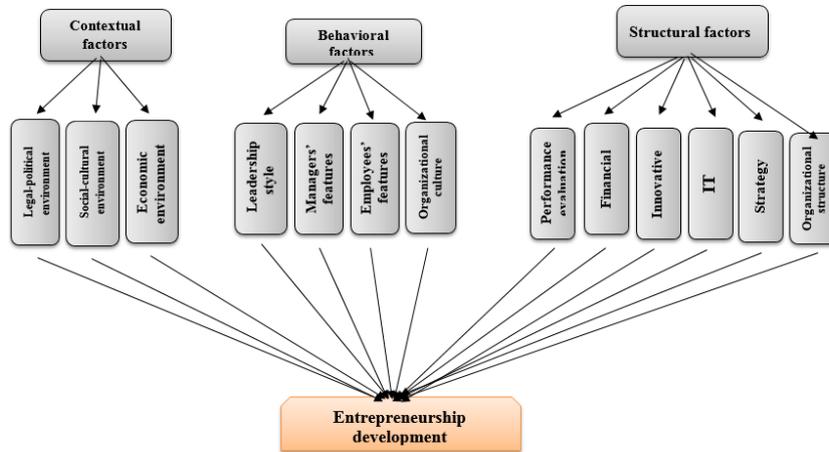


Figure 1: Conceptual Model of the Research

4. Data Analysis

The result of Analytical Hierarchy Process (AHP) for the main factors and research indicators

Using Analytic Hierarchy Process the present study determined three main factors and for each of them some sub-indices to prioritize the factors and indicators that are related to factors affecting the development of entrepreneurship. The integrated paired comparison matrix of 130 decision makers is shown in table (1).

Table 1: Paired comparison matrix of the main research factors

contextual	behavioral	Structural	Indicators
		1	Structural
	1		behavioral
1			contextual

After making the model by Expert Choice software and entering the paired comparisons matrix, the weight of criteria and sub-criteria were obtained which can be seen below. The figure (2) shows prioritizing of the main factors that affect the development of entrepreneurship based on the combination of decision-making methods by using AHP and Expert Choice

software. As shown in Figure 9, technological factor with the relative weight of 0.447 is the most important factor, structural factors with the relative weight of 0.319 is the second priority, and contextual factor with the relative weight of 0.233 is the third priority. The paired comparisons inconsistency rate is 0.3 and since it is less than 0.10, the comparisons are acceptable.



Figure 2: Prioritizing the main factors using the Expert Choice software

Table 2: Prioritizing the main factors that affect the development of entrepreneurship

row	criteria	weight	priority
1	structural	0.319	2
2	behavioral	0.447	1
3	contextual	0.233	3

Calculating the relative weight of structural indicators

Paired comparisons for each of the indicators with respect to structural factors are shown in Table 3 and Fig. 3. Considering

the table and figure, it is clear that communication between all sub-indicators is two-way.

Table 3: The paired comparison matrix of structural indicators

performance evaluation	Financial	innovation	Information Technology	strategy	Organizational structure	structural indicators
					1	Organizational structure
				1		strategy
			1			Information Technology
	1	1				innovation
						Financial
1						performance evaluation



Figure 3: Prioritizing the main indicators according to structural factors

Table 4: Prioritizing the main indicators according to structural factors

row	criteria	weight	priority
1	Organizational structure	0.171	5
2	strategy	0.134	3
3	Information technology	0.212	1
4	innovation	0.142	2
5	financial	0.172	4
6	Performance evaluation	0.170	6

According to the above table and considering the original weight that is obtained, the following components have the highest to lowest importance in the group, respectively: information technology, innovation, strategy, financial, organizational structure and performance evaluation. On the other hand, since the inconsistency rate is 0.08, which is smaller than the standard 0.1, the questionnaire is completed by respondents with high precision.

**Calculating the relative weight of the behavioral indicators**

Paired comparison for each of the indicators according to behavioral factors is provided in Table 5 and Figure 6. Regarding the table and figure, it is clear that there is a two-way communication between all sub-indicators.

Table 5: paired comparisons matrix of behavioral indicators

<b>Behavioral indicators</b>	cultural	Employees' features	Managers' features	Leadership style
cultural	1			
Employees' features		1		
Managers' features			1	
Leadership style				1



Figure 6: Prioritizing the main indicators according to behavioral factors

Table 6: Prioritizing the main indicators according to behavioral factors

row	criteria	weight	priority
1	cultural	0.569	1
2	Characteristics of employees	0.190	2
3	Characteristics of managers	0.178	3
4	Leadership style	0.063	4

According to the above table, in terms of the original weight the following components are of highest to lowest importance in the group, respectively: culture, characteristics of employees, characteristics of managers, and finally leadership style. Since the inconsistency rate is 0.02 which is smaller than the standard value 0.1, the questionnaire was completed by respondents with high precision.

**Calculating the relative weight of contextual indicators**

Paired comparison for each of the indicators based on the contextual indicator is provided in the table (7) and figure (8). Considering the table and figure, it is clear that there is a two-way communication between all sub-indicators.

Table 7: paired comparison matrix of contextual indicators

legal	political	cultural	social	economic	Contextual indicators
				1	economic
			1		social
		1			cultural
	1				political
1					legal

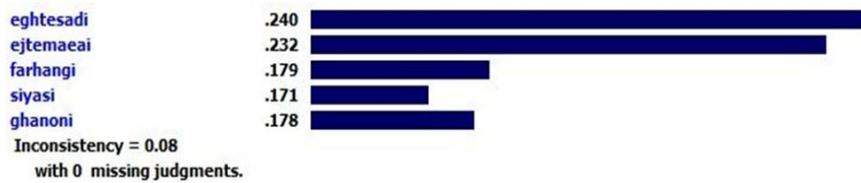


Figure 8: prioritizing the main indicators regarding contextual indicators

Table (8): prioritizing the main indicators regarding contextual indicators

row	criteria	weight	priority
1	economic	0.240	1
2	social	0.232	2
3	cultural	0.179	3
4	political	0.171	5
5	legal	0.178	4

According to the above table, in terms of the original weight the following components are of highest to lowest importance in the group, respectively: economic, social, cultural, legal and political. Since the inconsistency rate is 0.08 which is smaller than the standard value 0.1, the questionnaire was completed by respondents with high precision.

**5. Conclusions and Recommendations**

Nowadays that work and business involve self-entrepreneurship and self-employment, the entrepreneurship and entrepreneurs play a key role in the economic development of different societies. Due to the growing competitive business conditions, organizations are trying to be more entrepreneurial and have higher productivity and efficiency. Entrepreneurship as an important social phenomenon is influenced by several factors. Some experts believe that economic conditions will lead to entrepreneurship. They argue that entrepreneurship is the main force of economic development and brings change and innovation, along with growth and production of services.

Numerous studies have been conducted on the factors affecting the development of entrepreneurship. The studies have investigated different factors.

This study examined the major and minor factors that affect the development of entrepreneurship by using three main components: structural factors, behavioral factors, and contextual factors, as well as their subdivisions. The results are as follows;

In terms of structural factor, the following components are of the most and the least importance in the group, respectively: information technology, innovation, strategy, financial, organizational structure and performance evaluation.

In terms of behavioral factor, the following components are of the most and the least importance in the group, respectively: cultural components, characteristics of employees, characteristics of managers, and leadership style.

In terms of contextual factor, the following components are of the most and the least importance in the group, respectively: economic, social, cultural, legal, and political components.

Considering the results, the following suggestions are provided to improve current research and future studies;

- The study suggests that managers and macroeconomic decision makers use incentives such as low-interest loans, tax breaks, etc. to encourage entrepreneurship among economic agents. Given the great importance of economic criteria, adopting such policies will lead to the promotion of entrepreneurial activities in the region.

- The study suggests that economic authorities and policy makers pave the way for the private sector to actively take part in entrepreneurship. In this regard, strategies such as reducing red tape and unnecessary bureaucracy, recognizing the rights of the legal sector and giving financial incentives can be advantageous.

- The study suggests conducting conferences and meetings in the region in the presence of top entrepreneurs. Holding such seminars on the one hand leads to exchanging experiences and skills and on the other hand encourages entrepreneurial activities in the economic agents.

- The study suggests that senior managers and authorities use Leader-Member Exchange (LMX) leadership style to advance their jobs. In such circumstances, employees will be allowed to freely express their creative and new ideas. This ultimately will

lead to improvement of innovation and entrepreneurship development.

- The study suggests that the organizations use a fair and accurate reward system in accordance with the degree of activity of employees. On the one hand this encourages employees to work more and on the other hand by increasing the perceived organizational justice, increases the organizational commitment and engagement of the employees.

#### Suggestions for future researches

- Investigation of the relationship between improvement of the employees' quality of life and the development and promotion of entrepreneurship
- Investigation and identification of other factors that affect the development of entrepreneurship
- Investigation of the relationship between leadership styles and entrepreneurship development
- Investigation of the factors such as self-esteem, job security etc. on the organizational entrepreneurship.

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## IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION AT SADERAT BANK IN TEHRAN

<sup>a</sup>HAMID TABOLI, <sup>b</sup>HOSSEIN KHARABI, <sup>c</sup>SEYED MOHAMMAD SAMIEI KASHI

<sup>a</sup> Assistant Professor of Payam Noor University, Public Management Department, Tehran, Iran

<sup>b</sup> Ph.D. Student in Public Management, Policy and Decision Making, Keram Islamic Azad University, Iran

<sup>c</sup> Ph.D. Student In Public Management, Policy And Decision Making, Kerman Islamic Azad University, Iran

Email: <sup>a</sup>hamidtaboli.21@gmail.com,

<sup>b</sup>H.kharabi.30@gmail.com, <sup>c</sup>s.mohmd.samieikashi.2@gmail.com

**Abstract:** This study aimed to investigate the impact of service quality on customer satisfaction at Saderat Bank in Tehran. The present study is correlational and is applied in term of purpose of the research. Statistical society includes customers at Saderat bank. Statistical sample size included 823 customers of Saderat Bank in Tehran was determined by Cochran formula. Sampling was conducted using simple random sampling. Data were analyzed in descriptive level by frequency, mean and standard deviation. The results showed that the physical condition of components, reliability, assurance, responsiveness, empathy will have a significant positive impact on customer satisfaction at Saderat Bank. Research findings also showed a positive and significant impact of service quality on customer satisfaction.

**Keywords:** Service Quality, Customer Satisfaction, Customer, Saderat Bank

### 1. Introduction

The service sector has enjoyed significant growth in recent years, so that its share of global GDP was more than other sectors. It was found that the basic trends of the twentieth century has led economy to transfer from industry orientation to service orientation. Accordingly, services plays an important role in marketing at businesses and superior service is part of the value requested by customers. Hence in a free and competitive markets, strategies such as providing quality service, has attracted the most attention. [1]

If have a glance at the history of quality activities in recent history we will find that the quality of the product and tangible goods has nearly a century of history. [2]

Today's competitive market requires any production or services company to try to their survival and profitability, to improve its position among other competitors. Success of companies and institutions, largely depends on further understanding of customers and competitors and other factors affecting the market. In addition, in recent years competition has increased in the services market.

Companies that have real understanding of the needs and expectations of customers and to provide an appropriate response to changes in the market, can ensure success than other competitors. In the service organization, customer is concerned as a core. Increase awareness and knowledge of customers and, consequently, increased expectations and demands of the organization, the organization is faced with a serious challenge. [3]

Quality is a key element for success in business. Assessment of quality of service is the main topic of empirical and conceptual research in marketing services. [4] Nowadays, more than ever, the issue of quality of service as an important factor for the growth, success and sustainability of local organizations as strategic, effective and comprehensive management of organizations has been concerned. [5]

### 2. Research theoretical framework

It seems, quality is a dynamic target in current markets. No service cannot be considered truly great unless its products meet the highest quality standards. "Bond", defines the customer based quality as "customer can only judge what quality is. In fact, the customer is always right and the last word with him. "

In terms of "Wright", the concept of quality of service is: Provide appropriate services to achieve organizational goals, providing appropriate services in place and the right time or the right services at the first request. "Zeithaml", "Parasuraman" and "Barry", in 1990 defined the quality of services "between the demands of customer expectations and perceptions of services received". Several definitions of service quality provided, some of which include:

A) Service quality includes three Physical, location and behavior dimensions. In other words, quality of service is focus on what is the delivered to customers and the situation of the services to be offered in the future.

B) The sustained attention of the organization to meet the needs and demands of customers.

C) The difference between customer expectations and perceptions of services received services.

What can be concluded from a literature review service quality is the third definition that customer expectations are based approach disapproval, over the years, the definition has been dominant. However, a subset of cognitive recently used this approach further. [1]

Services include various activities in order to respond to the wishes and desires of the customer. From the perspective of customer one of the signs direct service, or service quality when facing a decisive moment turns out. Because of the nature of their interpersonal customer service evaluation is based on their perception of the service encounter are doing. So far, most research on exposure to the consumer sector focused service. But since commercial services due to the exposure of individual service and quality centric. It plays an important role in trade. There have been various definitions of exposures serving.

These definitions often focus on serving nature of interpersonal encounter, such as:

Two-hand interaction between customer and service provider

The length of time during which clients communicate directly with their service providers.

Contact aspects of individual and social / interpersonal service provider that a greater role than technology plays in shaping the perception of quality.

The length of time during which the customer is served.

If the above definition implies, the most important factor in meeting individual customer service interactions with employee's span of service. Customer look is one sign of quality service to the straight in the face decisive moment back service or service provider. Because of the nature of interpersonal evaluation services their customers based on their perception of the service experience. [1]

In this respect, quality assessment services, including basic steps in developing quality improvement program. According to Zafiroflos (2007) service quality is for survival and profitability for vital strategic and profitable at organization. [6]

Dimensional approach to quality of service in the face of the objective criteria used to evaluate it. Because it is assumed that customers and employees used certain criteria to conduct the evaluation. Chandon et al, provided dual assessment of the quality of service exposure that is of direct relevance to due process. Winsted three-dimensional criterion for assessing the quality of service provided exposure that includes respect, civility and agreement.

Rajput provided seven dimensions to assess the quality of service provided include: tangibility, reliability, assurance, integrity, personalization, recognition and accountability. Keylor et al in several countries examined the level of service, quality of service exposed as a physical product quality, service quality, desertion and behavioral intentions.

In another study by Jayavardna et al, service quality dimensions are the professionalism of the staff, employee's intimacy with customers, staff courtesy and competence. What is clear from this study is that most research in the field of consumer and four commercial research is done: Rajput et al., Chandvn et al., Winsted and Chanaka et al. [1]

There are two models in the field of service quality include:

1. Model of service quality. Dimensions: tangibility, reliability, responsiveness, assurance and empathy.
2. The model includes faceplates functional dimensions of service quality: technical quality and performance.

Although the above models have been used in the consumer market, but their use in commercial markets / industries is impaired. To solve this problem and to assess the quality of commercial services, interactive approach was proposed by the Marketing Department and the purchase of equipment. This model focused on buyer - seller interaction and its analysis unit. Based on the exchange and communication interaction between the two components, forms the perception of commercial service. [1]

There are measurement models such as the Kano model, Fournel model, and SERVQUAL Model to assess the quality of services. In this research SERVQUAL is used to evaluate the quality. This model was introduced in the early '80s by Parasuraman et al. In this model, customer satisfaction with the quality of services provided is measured. Also gap between customer expectations of service provided is measured. Also, the gap between customer expectations and perceptions of the services offered are determined.

According to Parasuraman et al, with the help of this model, but given that organizations may be different. Managers according to the characteristics and needs of organization, to make the appropriate changes should be exclusive to this model. In this model, a questionnaire with 22 questions (criteria) is designed to offer a service in which clients and customers to assess the situation. These 22 questions included five aspects of quality of services that are provided below:

**Tangible:** the physical facilities, equipment, communications equipment, in terms of their appearance and appearance;

**Reliability:** the ability to provide accurate and reliable service commitments;

**Responsiveness and accountability:** the willingness to help customers and provide prompt service;

**Assurance:** knowledge and courtesy of employees and their ability to instill confidence in the integrity of services;

**Empathy:** involves special attention of university to its students.

This model is composed of two parts:

The first part consists of 22 questions measuring the expectations of our customers and to identify customer expectations in connection with a service is used.

The second part of the evaluation of customer service is concerned is that it contains 22 questions. The main and primary aim was that SERVQUAL model developed by slightly modifying an appropriate tool for measuring the quality of services provided in all organizations. [7]

This model indicates that the activities of the organization to affect the perception of quality. In addition, this model indicates the interaction between this models, the interaction between these activities; connections between the activities of the organization or marketer to provide a satisfactory level of service quality. This connection can be described as a gap or mismatch. This model enables management to service gaps and find out the causes of these gaps. This SERVQUAL model has five scales. (Physical, reliability, warranty, responsibility and empathy)

These measures include:

**Physical dimensions:** including the availability of facilities and equipment is working and communication goods. All this resolution provide the client to assess quality, it gives consideration. Like amenities in the physical environment of the organization.

**Reliability:** means the ability to perform reliably and reliable service, so that customer expectations are met.

In fact, reliability is fulfilling obligations, meaning that if organizations provide services in the field of time, manner and cost of services.

**Accountability:** Accountability is the willingness to cooperate and help the customer. This dimension of service quality, emphasis on showing sensitivity and awareness for requests, questions and complaints from customers.

**Warranty and Guarantee:** warranty or guarantee is competence and ability to represent employees in instilling a sense of confidence to the client, to the organization. This dimension of service quality, especially in the important services that they have a higher risk.

**Empathy:** personal attention and allocation of work time for all customers, This means that due to the mentality of individuals, with each of them is special treatment, As they become convinced that agencies understand their customers and they are important to the organization. [5]

The first and most important marketing principle according to the customer's wishes. Organizations regardless of the customer's wishes cannot survive. But much less expensive to retain existing customers than attracting new customers. Providing appropriate services to retain the customer. [8]

One of the organizations in the provision of services and its role and importance in the economy and the country's development is banks. Talk banking customer satisfaction in a few years in the

current atmosphere of Iranian society is of particular importance and sensitivity. Banks and banking industry due to the type of services offered and to consider the type of close relationship that exists between the organization and its customers.

For the customers of the banks are the only source of income for the organization and the organization would not exist without them. So from the time of production to supply customer service, have opinions, tastes and wishes him well considered and addressed. Given the importance of the ideas of belonging and loyalty to the client organization and causes not only a customer satisfaction in it, but she knows her part of the organization. For the above reasons the banks in order to attract new customers and winning their loyalty to their steps.

Therefore it seems that whatever the variables that are associated with customer satisfaction in banks, this ensures that banks can take steps to satisfy customers the better. Given the importance of what was said, this study is to follow the impact of service quality on customer satisfaction at Saderat Bank in Tehran.

### 3. Research hypotheses

#### 3.1 General hypothesis

Quality has an impact on customer loyalty of Saderat Bank at Tehran.

#### 3.2 Special hypotheses

1) Physical condition has an impact on customer satisfaction of Saderat Bank at Tehran.

2) Reliability has an impact on customer satisfaction of Saderat Bank at Tehran.

3) Ensuring has an impact on customer satisfaction of Saderat Bank at Tehran.

4) Accountability has an impact on customer satisfaction of Saderat Bank at Tehran.

5) Empathy has an impact on customer satisfaction of Saderat Bank at Tehran.

### 4. Research Methodology

The present study is correlational and in terms of the purpose of the research is applied. Statistical society of this research includes customers of the Saderat Bank in Tehran. Because the number of statistical society is not specified, the first 30 questionnaires were distributed among bank customers. Then enter a score Cochran questionnaire variance in sample size formula for indefinite societies, the sample size was determined. Cochran's formula for determining the sample size for communities were uncertain that this formulation is as follows.

$$n = \frac{z_{(\alpha/2)}^2 s^2}{d^2} \quad (1)$$

$$n = \frac{[(1.96)]^2 (0.536)}{[(0.05)]^2} \quad (2)$$

$S^2$  = variance;  $n$  = sample size;  $z_{(\alpha/2)}$  = estimate taking into account the 95% confidence level is this amount equal to 1.961;  $d^2$  = amount of estimated accuracy (tolerance) is assumed here 0.05

According to Cochran's statistical sample size was 823 people. Sampling is done using simple random sampling. The main instrument used in this study was a questionnaire. To measure customer satisfaction questionnaire customer satisfaction by

Seyyed Mohammad Moghimi (2013) [11] was designed. This questionnaire is Likert scoring.

Quality of service are measured using the Khajehpour (2011) and has the physical condition of components, reliability, assurance, responsiveness, empathy. Survey questionnaires are being replicated in several studies and reliability necessary components are standardized questionnaire. Since the research questionnaire, which will measure the same thing, in terms of content, have validity. On the other hand questionnaire research has also been approved by university professors.

To determine the reliability of the study, Cronbach's alpha was used. Cronbach's alpha of customer satisfaction was 0.819 and service quality questionnaire was 0.837, indicating the high reliability of the questionnaire research. Using research data descriptive and inferential statistics were described as mean and standard deviation of the regression was performed to confirm or refuse research hypotheses.

### 5. Descriptive statistic

Table 1: Description of research variables

Variable	Minimum	Maximum	Average	Standard deviance
Physical situation	1.23	5	3.19	0.613
Assurance	1.96	5	3.85	0.512
Guarantee	1.73	5	3.41	0.752
Responsiveness	1.21	5	3.43	0.674
Empathy	1.39	5	3.50	0.452
Customer satisfaction	2.11	5	3.18	0.551

### 6. Deductive statistic

Table 2: Results of regression tests for research hypotheses

Hypothesis	No.	Correlation coefficient	Determination coefficient	Significant level	Result
(1)	823	0.654	0.504	0.000	Approved
(2)	823	0.721	0.614	0.000	Approved
(3)	823	0.546	0.400	0.000	Approved
(4)	823	0.812	0.578	0.000	Approved
(5)	823	0.719	0.611	0.000	Approved
Main	823	0.735	0.621	0.000	Approved

According to Table 2, the significance level is less than 0.05, the result is all the more meaningful relationships between variables. Correlation between the variables in the hypothesis of the study revealed a direct relationship between the research variables in all hypotheses. On the other hand determining factor in all of the quality of service indicates that all components of service quality on customer satisfaction have influence. Also coefficient of determination Quality of Service (0.621), which shows the quality of services as well as 1.62% impact on customer satisfaction.

### 7. Results

Results obtained of the first hypothesis suggests that physical condition has a significant effect on customer satisfaction. This result suggests that the Bank should be used in the field of modern equipment, physical facilities, the staff, the regular service, neat and clean invest. Because the physical dimension of service quality is better since then has physical effect on customer satisfaction leads to greater customer satisfaction.

Results obtained of the second hypothesis suggests that reliability has a significant effect on customer satisfaction. This result suggests that banks should provide timely services related to the field, perfect effort and passion to solve problems such as the ability to ensure the quality of service customers invest

better. Since then there Reliability effect on customer satisfaction leads to greater customer satisfaction.

Results obtained of the third hypothesis suggests that ensures a significant effect on customer satisfaction.

This result shows that the bank must provide services in areas such as quality, create ensuring the quality of services offered to tourists in the hotel, creating a sense of security and comfort to passengers who have received services. Because whatever better service quality assurance dimension, since then has an impact on customer loyalty will be to ensure customer loyalty more hotels.

Results obtained of the fourth hypothesis suggests that accountability has significant effect on customer satisfaction. This result suggests that customers should be able to easily transfer their problems to the bank personnel and personnel should be the improvement of the comments and suggestions of the customers who apply in their work.

Results obtained of the fifth hypothesis suggests that empathy has a significant effect on customer satisfaction. This result suggests that bank staff should pay more attention to their customers' expectations. Also bank must sensitivity and awareness of requests, questions and complaints from customers. Because whatever better service quality is empathy dimension, since empathy dimension is the effect on customer satisfaction makes the bank more customer satisfaction.

Results obtained show that service quality has a significant impact on customer satisfaction Saderat Bank in Tehran. The result of this hypothesis with the results of Aref and colleagues (2013), Sigoro (2013) Feizi and Tatari (2011) is consistent. About result can be said that whatever banks improve their service quality, customer satisfaction will be greater than the Saderat Bank.

## 8. History of research studies

Aref, Evin Yan, Zakhan, Khaled Ismail (2013) study entitled impact service quality and customer satisfaction on customer loyalty in Internet banking did. These researchers from the online version of the servqual questionnaire to assess Internet banking services in Malaysia used a commercial bank. Random ones of 265 questionnaires were collected from internet users banking services.

Findings showed that the realization of confidence, attractiveness of the website, guide the use of the website, system availability, privacy, internet banking services are the answer. Research results showed that the attractiveness of the website, A Guide to the site, the availability of systems, online banking accounts with a positive effect on customer satisfaction. E-mail customer loyalty also customer satisfaction has a significant impact.

Electronic satisfaction with charm website and FAQ Use of electronic banking services and electronic customer loyalty mean there is a significant relationship. As a result, the attractiveness of the website and appearance, providing information and tips about web services, the features are important for online banking users.

These findings reflects that of Internet banking along with technical aspects, the quality and availability of services such as system efficiency, web site attractive and appropriate guidance for quality assurance and critical e-mail to the satisfaction and loyalty of customers. [9]

Sigoro (2013) article due to perceived service quality, customer satisfaction and loyalty did the factors contained. The results showed that customer's perception of service quality and its surrounding factors. Then understand the services have a direct

impact on customer satisfaction. Finally, customer perception of service quality and relationship quality and customer satisfaction have a direct impact on customer loyalty. [10]

Kamran Feizi and Saeed Tatari (2011) in the article "Improving service quality in airline flights Islamic Republic of Iran (navigational model based on quality of service)" concluded that the Iran Air can improve service quality and meet customers' satisfaction through they will provide in the future. [2]

## 9. Conclusion

The results showed that the physical condition of components, reliability, assurance, responsiveness, empathy will have a significant positive impact on customer satisfaction Saderat Bank. Research findings also impact service quality on customer satisfaction showed a positive and significant.

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## THE EFFECT OF A PERIOD OF MENTAL EXERCISES AND CORRECTIVE ON THE SPINE KYPHOTIC DEAF GIRL

<sup>a</sup>AZADEH KHODABAKHSHI, <sup>b\*</sup>SYED SADREDDIN SHOJAEDDIN, <sup>c</sup>MEHDI KASBPARAST JUI RAY

<sup>a</sup>Masters student of Corrective Exercises and Sport Pathology, Department of Physical Education and Sport Sciences, Islamic Azad University Karaj Branch, Karaj, Iran

<sup>b</sup>Associate professor of Physical therapy and rehabilitation, Department of Physical Education and Sport Sciences, Kharazmi University of Tehran, Tehran, Iran

<sup>c</sup>Instructor of Physical Education, Department of Physical Education and Sport Sciences, Islamic Azad University Karaj Branch, Karaj, Iran

Email:<sup>a</sup>azadeh.khodabakhshi.12@gmail.com,

<sup>b</sup>Sa\_shojaedin.sss@gmail.com,

<sup>c</sup>mehdi.kasbparastjui@gmail.com

**Abstract.** The purpose of this study was to investigate a core stabilization exercise on static and dynamic balance with cerebral palsy spastic diplegia were girls. For this study, 20 volunteers were selected and randomly divided into two experimental and control groups. Protocol core stabilization training for 8 weeks, that was conducted and the control group continued with their normal lives. To test hypotheses and significance level  $0.05 > p$  was considered and Spss software version 20 was used for calculations. The results showed that the static balance with eyes open and closed Romberg test, the difference was not significant but no significant difference was seen in dynamic balance with Y- test. It can be concluded that postural control and balance in patients with cerebral palsy spastic diplegia resulting in core stability can be improved.

**Keywords:** cerebral palsy, spastic diplegia, static balance, dynamic balance, core stability, proprioception sense.

### 1 Introduction

Human beings are animated by all means and his survival depends on his movement and physical activity. Today, as a result of lack of exercise and physical activity among schoolchildren on the one hand and stressful situations caused great concern and has made life on the other machine many physical and psychological effects, including musculoskeletal pain and discomfort caused by it are quite tangible increase (Izadi, 2007). Although the use of heavy bags, sit behind a desk and non-standard benches and inappropriate, wearing tight shoes, inert, bad move, poor nutrition is the most important reasons in this regard. On this basis, the skeletal spine important part of the person's physical condition. The upper part of the spine is important that in addition to protection and support is one of the most sensitive parts of the body, spinal cord and at the same time the movement is important to maintain the strength of the human body (Alizadeh et al., 2007). Body condition, general health and performance metrics to express the movements and activities. In other words, the foundation of all human movement to the start and end of each move depends on the species status and physical structure. A more appropriate body condition less fatigue and more efficiency. In the meantime, given the very important role of the spinal column to appear. Keep the spine in alignment and placement and attachment to the effective functioning of human muscles and ligaments He added vulnerability. Therefore, any weakness in the muscles holding the spine, will disrupt his stature. The weakness of the muscles of the spine will be adverse effects on the body structure, in the absence of these mechanical failures and unrecoverable come in the form of fixed defects. In view of the side-view backbone structure with arches of cervical, thoracic, lumbar and abroad. The arches are responsible for several tasks, including the ability to increase the strength and diversity and facilitate the movement of the spine. (Gharakhanlou and Alizadeh, 2009). As a result, the importance of postural kyphosis deformity has led to this complication is considered by researchers. Abnormalities in terms of treatment and no right to be different ways in which the use of corrective exercises, postural Kyphosis deformity and reform of the common methods and researchers typically for

topical administration of these exercises, the anomalies in the management of patients (Qadiri, 2013). In Iran, research in this area in recent years has gained a special place, Because officials and community leaders, one after physical education and sports as a means to prevent and treat a variety of physical deformities and mental disorders are community and a large part of the slogan <what is now treated, is yesterday prevention has> been put in charge of physical education and sport. For this reason, Physical Education and Sports as new knowledge with other sciences, has a special place and utilizes the findings of the humanities, and sciences, biology, an important role in health, prevention and treatment of many diseases has taken. Now more than ever, it's important to have medical knowledge that As much as possible rather than prescribe a variety of drugs in the body is associated with many side effects the types of corrective exercise and sports as varied for the treatment and prevention of many diseases prescribed (Daneshmandi, et al., 2009). Statistics regarding the various causes of deafness and are not available in our country, some studies 4.13% of the subjects were suffering from hearing loss (Izadi, et al., 2012). Meanwhile, mental imagery is very useful in rehabilitation, mental exercise is also beneficial for the acquisition of a new skill may improve performance skills in rehabilitation to relearn a skill as well as traffic police officers are also useful due to the effect of a period determined mental exercises and corrective spine status is considered deaf girl kyphotic.

### 2 Problem statement

The human body is composed of multiple components. These components are located next to each other in a certain way to communicate with each other and form a single structure. Several factors in integrating the collection of structural units work together. Exposure to various body parts over each other like blocks that are positioned relative to each other have to interact, and must be in balance to form a whole. Head, trunk and extremities are the main components of anatomy, as well as reciprocal performance, fit with each other structure and status of the relationship of these sections together physical condition is known. Given the likely impact of different factors on human physical condition throughout life, it is stated that the acquisition of ideal body condition is very difficult and less can be found people who have the ideal body (Alizadeh et al., 2013). Spine basis for the head, shielding the internal organs, ligaments and muscles to connect stable basis, chest and pelvis, and the connection between the upper and lower limbs and trunk mobility provides (Sokhango Akbari and Najafi, 2006). Depending on how the pieces fit onto each other need to be backed up through the muscles of the spine are not distorted. But to count when the muscles holding the balance of power and stature in the spine may not be over, So that groups tend to atrophy, weakness and shortness of another group, the spine curves disrupt his balance and causes the abnormal curvature of the spine occur (Ilkhanlar and Balochi, 2010). Kyphosis of abnormalities that started from a very low level and gradually progresses to the point that structural problems such as wedge-shaped (Wedging) osteoporotic vertebral fractures, which can be a prelude to or neurological disorders later in life, especially in women is. (Hijazi, 2007). The event will be rounded upper back, sternum goes down and comes down chest the small chest cavity is thus very sensitive and possibly internal organs from their original position to move around. The normal kyphosis 20-40 degrees. If the angle of 40 degrees is known as malocclusion. Following the false patterns in the manner of maintenance of the body, such as excessive working hands in front of the body to strengthen the muscles of the opposite, kyphosis is a primary cause of the anomaly. Despite the complications it causes in the body over, hands forward and back feel will have an abnormal curvature of the state, due to falling shoulders forward and back muscles stretch the muscles of the chest area is short, and if this anomaly timely detection and prevention will be irremediable effects (Daneshmandi, 2015). In developed countries through

various tests from the early days, different people in different age groups to evaluate and test the anomalies in the body and preventing the initiation abnormalities such as kyphosis from the early beginning of their life. So it seems that such tests are necessary at all levels of education including primary, secondary, high school and university so that to prevent such anomalies and their treatment action is necessary. (Arian et al., 2010). The disability to a set of physical, mental or psychological refers to a person of ordinary life and their own personal or community opens. Disabilities with limitations and disabilities experienced person as a result of disorders associated. In other words, disability is a function of the relationship between persons with disabilities and their environment and when that happen the people to the cultural, physical or social encountered and probably unable to various systems of society that is accessible to other people, use (Asmirnova, 2003). A hearing impairment usually diagnosed during early life. The growth of abnormal posture with delays physical disabilities are common among deaf children And is often related with atrial malfunctions. (Ryan, et al., 2000). Hearing disability problems often only considered the aspect of communication. However, communication problems, the main defect is caused by hearing loss, hearing bow is also likely to have other health issues (Behrman, 2004). Deafness is a sensory disorder nervous that more than 120 million people worldwide suffer from it, this impairment annually about 150 million dollars to bring that one of the goals of the World Health Organization encourage countries to prevent deafness in international projects such as reducing the age at diagnosis and it is done at birth. Ten percent of the country's disabled population 2.16%, ie 470 thousand people, hearing impaired and speech disabled population and from each thousand children born in the form of Iran, between five and six children with hearing impairment is dumped (Behrman, et al., 2003). Children with sensory disabilities due to adopt a sedentary life-coincides generally suffer from poor physical fitness more important reflected the sensory systems. The human sensory systems play a major role in motor control systems that include proprioceptive sensory, vestibular and visual. Any failure of this system leads to problems with balance posture and coordination are (Kuban, 1990). Research on postural stability in patients with impaired vestibular apparatus indicates that, in the absence of both visual and somatosensory data to be transmitted without difficulty, postural deviation natural state will stand. In contrast, when the data were insufficient visual and somatosensory, had difficulty in maintenance of your posture (Rine, 2013). It seems that children with disabilities to achieve health goals, not enough activities (Liao, 2007). So there is a disability would limit the involvement of children in normal activity (Sadeghi, 2008).

Thus, according to the study sought to answer the question whether the period of mental exercises and corrective spinal condition affects deaf girl?

### 3 Research purposes

#### 3.1 The overall goal

The effect of a period of mental exercises and corrections the status of kyphotic spine deaf girl.

#### 3.2 Specific objectives

1. The effect of a mental exercise period extension and repair of the spinal kyphotic deaf girl.
2. The effect of mental practice and correction of lateral flexion of the spine kyphotic deaf girl.

#### 3.3 Hypothesis of research

##### 3.3.1 The general assumption

A mental exercises and corrective effect on the spine is kyphotic deaf girl.

##### 3.3.2 Specific assumptions

1. A period of mental exercises and corrective to the extension affects the spine kyphotic deaf girl.
2. A period of mental exercises and corrective lateral spinal flexion deaf girl kyphotic impact.

##### 3.4 Default Research

1. The validity and reliability of measuring devices is acceptable.
2. The subjects in this study have contributed to the good.
3. The experimental group did the exercises correctly and under the supervision of a researcher.
4. Subjects have sufficient incentive to participate in the study.
5. Participants do not have the mental and emotional problems.

##### 3.5 Conceptual and operational definitions research words:

###### 3.5.1 Conceptual definitions:

1. The mental exercise: simply a symbolic exercise, including frequent mental imagery visible muscle in the absence of any major moves aimed at improving the performance.
2. Practice Reform: A subset of movement-therapy is used to change various body shapes.
3. Deaf person who prevented him from understanding what others hear the way the ear is even with the use of hearing aids.
4. Status of the spine: spine, the core of the human body in the form of S drawn, and four (arc) is formed, three play an important role: protecting the central nervous system, the weight of the body and the movement and participate in the various movements of the trunk and the supporting role of breast shelves.
5. kyphotic: increase excessive curvature of the spine and posterior sagittal plane thoracic kyphosis to say. This anomaly with increased curvature of the chest, shoulder and round shoulders clear away the situation. In this disorder usually has a curvature of the spine, severe posterior longitudinal.

###### 3.5.2 Operational definitions

1. The mental exercise: In this study, corrective exercises embodiment of the method is a mental workout by deaf girl has kyphosis.
2. Corrective exercises: In this study, carried out corrective exercises selected by the deaf girl with kyphosis, which include power movements, stretching and mobility sector.
3. Deaf: In this study, mean girls kyphosis that the hearing and the ability to hear surrounding sounds and conversations Ha61-80Dsy but not, in fact, people who are deaf and absolute extreme.
4. Status of the spine: In this study, measuring the lateral spinal flexion-extension of the spine and deaf girl with kyphosis by goniometer before and after exercise (mental corrected) is.
5. Kyphotic: In this research kyphosis angle greater than 40 degrees is equal curved deaf girl.

### 4 Methods and Outline of Research

Sample and sampling, sample 30 deaf girl kyphotic are the inclusion criteria of the study and purposefully into three groups

of 10 patients tested (a group of 10 patients corrective exercises and a group of 10 people mental exercises) the control group were homogenous groups.

Inclusion criteria for research are: 1. All participants are deaf, 2-athletes are, 3. savvy enough to understand simple verbal requests and instructions over the measure have and doing exercise, 4. Ability to have mental imagery, 5-individuals with no symptoms of other diseases, respiratory tract diseases is not, 6. The participants not taking any medication soothing.

Independent variables: 1. Mental exercises, 2. Corrective exercises. Dependent variable: 1. the extension of the spine, 2. Side flexion of the spine, 3. Abduction shoulder, 4. Chest expansion

#### 4.1 Collection tool of data

1. Personal Information Form (age-weight-height - medical history, damage) 2. Consent (to attend the training program) 3.Revised scale visualization capabilities MIQ-R (to assess the ability to visualize the subjects on deaf girl) 4.Flexible ruler (measure-extension of the spine) 5.Goniometer (measuring range of motion in abduction of the shoulder and flexion lateral spinal) 6. Tape measure (to measure the expansion of the chest-height) 7.Protocol 6-week corrective exercises kyphosis 8.Protocol 6 weeks e-mental exercises 9.Mats (for running exercises as well as run quizzes) 10.Foam (for running) 11.Ball (for running) 12.Digital scale beurer Germany (for weighing)

#### 4.2 Procedure

First complete explanation of the process is presented by researchers, students and their parents (group corrective exercises and mental workout as well as the control group), then to express their consent to participate in research 6 week by the participants or their parents completed and more personal information form to be completed by them .Having abnormal postural kyphosis greater than 40 degrees inclusion criteria for this study. After this phase (of three): Measurement of the expansion of the chest, shoulder abduction, extension, lateral flexion of the spine and the spine takes place. Measuring abduction: This measure individually with a goniometer with the goniometer axis in the posterior appendage of the acromion and the shoulder abduction for active and moving animated arm goniometer hand movement takes place at the same time. Extension of the spine, spinal papillae T12, C7 is detected and the normal mode and stand with flexible ruler to measure the distance. Then the person asked to do the maximum extension in the spinal dorsal. And again the distance is measured. Lateral spinal flexion measurements measured with lateral spinal flexion side of the little finger goniometer-measured distance to the ground. Upon completion of the tests (extension of the spine, lateral spinal flexion, the abduction of spine and chest expansion) scores are recorded. Next, the subjects were randomly assigned to three groups and targeted (mental-correction-control) are divided. Each number is 10, after dividing groups, mental practice group questionnaire imagery ability MIQ-R ((The purpose of this questionnaire is to evaluate the ability to see (visual imagery) and feeling (Kinetic Imaging)) to complement and, if necessary rating businesses fail of the band are removed. then participants in their groups fall and training groups provided to them to be. protocols rehearsals correction: this exercise protocol for 6 weeks, 3 times a week and every

other day the girls deaf has kyphosis carried out. duration of the exercise in each session 60 minutes (10 minute warm-up with the use of walking and exercise stretching, 1 minute workout harness, 12: 30 minutes of stretching exercises 31 to 30 minutes of strength training and cohesion, resting between exercises inhibitory elasticity and strength 4 minutes) runs. during training, all exercises under the supervision of researchers carried out and supervising the participants there. after the completion of the 6 week period re-test on them is done to determine the difference between pre-test and post-test that this training has taken place. Weekly protocol is repeated 6-week corrective exercises that time.

Mental exercise training program based model is Zhang Lei. This training lasts a few sessions. (Willson, 2007) of the video (to show the exercises) as well as the teacher of a deaf who are fluent in sign language can be used for this purpose.

The exercise protocol for 6 weeks, 3 times a week for a day among on the deaf girl has done kyphosis. The training for 45 to 50 minutes (definitions of mental exercise - relaxation - learn how mental exercise - training exercises related to the presence of kyphosis in mind) runs. During training, all exercises are carried out under the supervision of the investigator and supervising the participants. After completing the 6 week period on their re-test is done to determine the difference between pre-test and post-test exercise was conducted during this period. Finally, the tests will be taken away from them again. The control group did not do any exercise at this time.

#### 4.3 Statistical methods

Results with an average  $\pm$  standard deviation and percent changes are reported. Kolmogorov-Smirnov test to verify the normal distribution of data is done in the case of normal parametric tests will be used. The difference between the mean and the variance homogeneity, adopted by analysis of variance test and Levin were checked. To investigate the effect of corrective exercises and mental workout program on the dependent variables of t-test and for comparison group mean from ANOVA with post-test post hoc test and if non-homogeneity of variance post hoc Dunnett T-3 will be used. An alpha level of 0.05 is considered to be meaningful. Spss software version 20 will be used for calculations.

#### 4.4 The test of hypotheses

In this section to test the hypothesis will be discussed.

H0: A period of corrective exercises on deaf girl kyphotic spine extension has no effect.

H1: A period of corrective exercises on deaf girl kyphotic spine extension has effect.

H0: a period of mental practice on deaf girl kyphotic spine extension has no effect.

H1: A period of mental practice on deaf girl kyphotic spine extension has effect.

Initially, before the hypotheses to be addressed, should ensure the normal or non-normal data. The results presented in Table 1.

Table 1 Kolmogorov-Smirnov test

significant number	Statistics	Standard deviation	Average	Number	Level	group
0.992	0.432	1.312	18.269	10	Pre-test	Test (corrective exercises)
0.391	0.901	1.440	20.606	10	Post-test	
0.982	0.452	1.210	18.229	10	Pre-test	Test (mental exercise)
0.514	0.810	1.323	20.006	10	Post-test	
0.704	0.705	0.563	19.389	10	Pre-test	Control
0.926	0.547	0.626	20.169	10	Post-test	

According to Table 1 As a significant amount of surface area larger than the amount of errors ( $05/0 = \alpha$ ). So the assumption is not rejected and it is concluded that the distribution of the data follow a normal distribution and the default is observing the

normality of the data for analysis of covariance. After the distribution of data was normal, Levene test for homogeneity of variances in the samples examined. Results are shown in Table 2.

Table 2 homogeneity of variances test

A significant number	DOF 2	DOF 1	Levene's test	Level
0.567	18	1	0.340	Test (corrective exercises)
0.238	18	1	1.492	Test (mental exercise)

In Table 2 Equity sample variance is related to the amount obtained significant level (sig) in the (group corrective exercises) equal to 0.567 in (mental practice group) is equal to 0.238 greater than 0.05. Therefore it can be concluded that the sample variance, is homogeneous and the assumption of homogeneity of

variance and covariance analysis were not met. After the homogeneity of variances was evaluated, The analysis of covariance on two experimental and control groups and in both pre-test and post-test described above. Results are shown in Table 3.

Table 3 Covariance analysis

statistical power	The effects	Significant	F	Mean Square	DOF	Sum of squares	Source changes
1.000	0.671	0.000	34.727	14.915	1	14.915	Group (corrective exercises)
							Pre-test
0.980	0.615	0.001	18.157	7.798	1	7.798	Post-test
							Error
0.970	0.495	0.001	16.693	9.323	1	9.328	Group (mental exercise)
							Pre-test
0.341	0.119	0.119	2.693	1.505	1	1.505	Post-test
							Error
				0.559	17	0.559	

According to the data of Table 3 Analysis of variance (group corrective exercises) show between mean measurements for corrective exercise and control groups in post-test is significant difference ( $P < 0/05$ ). The hypothesis (H1) that corrective exercise training, on the deaf girl kyphotic spine extension is effective in the experimental group confirmed. Also according to Table 4.5 the effect of (eta squared), which is equivalent to 0.615 per cent is acceptable. The corrective exercises have about 61 percent in the spine extension deaf girl kyphotic make a difference. And also considering the data in Table 4-5 Covariance analysis (mental practice group) show that the average measurements (mental practice group) and control is not at post-test showed significant differences ( $P > 0.05$ ). The hypothesis (H0) that mental exercise training, on the extension of the spine kyphotic deaf girl groups not effective is confirmed.

The second hypothesis test is as follows:

H0: a period of corrective exercises on lateral spinal flexion not affect deaf girl kyphotic.

H1: a period of corrective exercises on lateral spinal flexion deaf girl kyphotic affected.

H0: a period of mental practice on lateral spinal flexion not affect deaf girl kyphotic.

H1: a period of mental practice on lateral spinal flexion deaf girl kyphotic affected (table 4).

Table 4. test hypothesis, normal or abnormal data

significant number	Statistics	Standard deviation	Average	Number	level	group
0.793	0.650	1.411	22.399	10	Pre-test	Test (corrective exercises)
0.523	0.813	1.048	24.394	10	Post-test	
0.902	0.570	1.187	22.199	10	Pre-test	Test (mental exercise)
0.827	0.627	1.435	23.051	10	Post-test	
0.983	0.464	2.038	22.419	10	Pre-test	Control
0.914	0.559	1.781	22.764	10	Post-test	

According to the results presented in Table 4 for this reason the significant amount larger than the amount of errors ( $\alpha = 0.05$ ). So the assumption is not rejected and it is concluded that the distribution of the data follow normal distribution and default

data normality for the analysis of covariance is met. After the data distribution was normal, Levene test for homogeneity of variances in the samples examined. See the results in Table 5.

Table 5 homogeneity of variances test

A significant number	DOF 2	DOF 1	Levene's test	Level
0.777	18	1	0.083	Test (corrective exercises)
0.075	18	1	3.570	Test (mental exercise)

Table 5 concerning the equality sample variance is due to the significance level obtained (sig) in the (group corrective exercises) equal to 0.777 in (mental practice group) equal to 0.075, which is larger of 0.05. Therefore it can be concluded that the samples variance is homogeneous and the assumption of

homogeneity of variance and covariance analysis were not met. After the homogeneity of variances was evaluated, the analysis of covariance of two experimental and control groups in both pre-test and post-test described above. See the results in Table 6.

Table 6 Covariance analysis

statistical power	The effects	Significant	F	Mean Square	DOF	Sum of squares	Source changes
1.000	0.880	0.000	125.156	33.866	1	33.866	Group (corrective exercises)
							Pre-test
1.000	0.746	0.000	50.031	13.538	1	13.538	Post-test
				0.271	17	4.600	Error
1.000	0.838	0.000	87.985	39.501	1	39.501	Group (mental exercise)
							Pre-test
0.328	0.132	0.127	2.577	1.157	1	1.157	Post-test
				0.499	17	7.632	Error

According to the data in Table 6 Covariance analysis (group corrective exercises) show that the mean of measurements in the experimental and control groups in post-test is significant difference ( $P < 0.05$ ). The hypothesis (H1) that corrective exercise training, the deaf girl kyphotic side flexion test group is effective is confirmed. Also according to the table (4-8) the impact (eta squared), which is equivalent to 0.746 per cent is acceptable. The corrective exercises have about 75 percent in the lateral flexion deaf girl kyphotic make a difference. As well as the table (4-8) analysis of covariance (mental practice group) shows that the mean of measurements in the experimental and control groups in post-test will be significant differences ( $P > 0.05$ ). The hypothesis (H0) that mental exercises on lateral flexion deaf girl kyphotic group test is successful, is confirmed.

## 5 Conclusion

### 5.1 The first hypothesis

A mental exercises and corrective to the extension affects the spine kyphotic deaf girl. The results showed a course of corrective exercises on the extension of the spine kyphotic deaf girl had an impact. After stretching the anterior trunk, the act of opening the dorsal spine and posterior trunk strengthening exercises are carried out, The mechanism of this effect is that stretching exercises to improve flexibility Kyphosis through the creation of a favorable stretch in the muscles and ligaments, the anterior segment such as small and large pectoral muscles, intercostal muscles, latissimus dorsi muscle and muscle anterior and posterior trunk muscles become weak as spine muscles, large rear, trapezoidal and-a parallelogram, thereby increasing the flexibility of the spine extension, improve range of motion and improve performance, increase mobility and reduce the risk of injury, increase muscle strength girls kyphotic act deaf.

### 5.2 The second hypothesis

A mental workout and repair of the lateral spinal flexion deaf girl kyphotic impact. The results revealed that a period of corrective exercises on lateral flexion of the spine kyphotic deaf girl had an impact. After stretching in the anterior and posterior trunk strengthening movements, the mechanism of this effect is that stretching exercises to improve flexibility Kyphosis through the creation of a favorable stretch in the muscles and ligaments in the anterior region, such as small and large pectoral muscles, Intercostal muscle, latissimus dorsi muscle and muscle anterior and posterior trunk muscles become weak as spine muscles, large rear, trapezoidal, parallelogram, increase lateral flexion of the spine, improve performance and improve range of motion and increased mobilization column lateral spine acts.

In general, the results of this study indicated that corrective exercises on the spine extension· lateral spinal flexion·abduction and chest expansion is an impact but merely mental exercises on chest expansion and abduction deaf girl kyphotic influence. As a result of the impact mental exercises and corrections on the spine kyphotic there is a deaf girl.

### 5.3 Suggestions

1. According to the results suggest the corrective exercise program as a complementary approach should be used to reduce the kyphotic deaf girl.
2. Also due to the positive effect on the mental training reduced chest expansion deaf girl abduction and mental exercises to reduce the kyphotic kyphotic recommended that these samples are considered therapists.
3. It is suggested that similar research study on girls and boys with hearing loss has done kyphosis.
4. It is recommended to reduce other forms of hard of hearing and deaf girls and boys over the kyphosis and the results of the present study done compare the products.
5. It is suggested that the impact of the reform program and on other mental disorders are examined.

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## MEASURING THE FINANCIAL EFFICIENCY OF COMPANIES IN THE PHARMA INDUSTRY WITH DEA METHOD AND ITS RELATIONSHIP WITH STOCK RETURNS

<sup>a</sup>MOSTAFA BOUR,<sup>b</sup> AZAM SOLEYMANI,<sup>c</sup> NAZANIN PILEVARI

<sup>a</sup>Master of Business-Financial Management, Yadegar-e-Imam Khomeini (RAH) Shahre-Rey Branch, Islamic Azad University, Tehran, Iran.

<sup>b</sup>Assistant professor, Department of Management, Yadegar-e-Imam Khomeini (RAH) Shahre-Rey Branch, Islamic Azad University, Tehran, Iran

<sup>c</sup>Associate Professor, Department of Management, Yadegar-e-Imam Khomeini (RAH) Shahre-Rey Branch, Islamic Azad University, Tehran, Iran

Email: <sup>a</sup>mostafabour@gmail.com, <sup>b</sup>a.soleymani3278@gmail.com  
<sup>c</sup>nazanin.pilevari@iausr.ac.ir

**Abstract:** One of the accepted principles of financial management is that the main and fundamental purpose of companies' management is to maximize the stockholders' wealth through optimal allocation of company resources. Since the beginning of the twentieth century, traditional accounting criteria such as earnings of each share, return on assets and return on equity have been used to operationalize such concept. The primary purpose of this research is an investigation of the relation between the companies' comparative financial efficiency and their stock returns with data envelopment analysis method. To this end, active pharmaceutical products and related material companies in Tehran Stock Exchange are investigated among 2011 to 2014. Regression is used to test the hypothesis. The findings of the hypothesis tests show there is a significant and partly permanent relation between stock returns and efficiency with data envelopment analysis in this period.

**Keywords:** Stock returns, efficiency, Data envelopment analysis, constant returns to scale, variable returns to scale

### 1. Introduction

During the last few decades, growth strategies and industrial developments are affected by two factors that are growth and capital accrual and augmentation of performance and efficiency in industry section. Scarcity and lack of manufacturing factors especially capital in developing countries has made the augmentation of performance and efficiency quite important in economic growth process in that the development strategies and effective growth has promoted efficiency and performance in various economical sections. One of the most common parameters by which potency of industrial activities to gain comparative advantages among various industries is revealed, is considered efficiency level and its promotion. Undoubtedly, efficiency augmentation in an industry by reducing average cost of the goods and service production causes a decrease in prices and subsequently an increase in the profitability amount of final products in industrial production entity. The result is an enhancement of competitive power of local products in foreign markets and an increase in the volume of new industrial investment (Chien and Douw, 2015; Feroz and Raab, 2012).

Today, efficiency measurement is done through different methods. Data envelopment analysis is one of the powerful management instruments which can help management out to get organization toward higher goals and optimization and allocation of sources and profitability as well (Feroz and Raab, 2012). This method gives managers an instrument by which they can evaluate their company performance against other competitors and then based on its result they can decide for promising future. (figure1)

### 2. Statement of the problem

Men has always been interested to make his life easier and better and all his effort has been to optimize the result through the minimum available facilities to create value added. It is way obvious that due to the restriction of available resources, man

always pays attention to get more output with higher quantity and quality. Hence, the measurement of efficiency has always been an important management issue. What makes a defense body of an economical entity strong that surpass other competitors is a sharp vision of the entity decision makers to recognize the weak and strong points as well as remove the flaws and promote the strengths in the whole entity, by creating an appropriate infrastructure. (Khajavi et al., 2010; Khajavi et al., 2005; Kodadad Hoseini and Shahtahmasbi, 2012)

It has always been significant to study the relation between the companies' efficiency with their stock returns and determine proper methods to measure the efficiency in various researches. Due to the use of mathematical techniques, avoiding the mental practices and personalization and high accuracy to reach conclusion, data envelopment analysis method is one of the most principle methods that has particular scientific place in recent decades. Therefore, the decision maker sections utilize this method widely in order to evaluate the efficiency (Mehregan, 2013). So in this research two questions will be raised:

1. What is the relation between company's financial efficiency (analysis via DEA method) and stock returns?
2. What is the difference between the calculation of efficiency model via BCC and CCR method and its relation to stock returns?

#### 2.1 Research purpose

The main purpose of this research is to find a relation between the financial efficiency and stock returns in pharmaceutical product and related material industry in order to find practical solutions in our investment beside stock returns.

In other words, if an investment in an efficient economical agency accompanies with stock returns, it can increase the stockholder wealth. It is quite important to know the relation between these two variables though.

#### The main hypothesis of research

- There is a relation between comparative efficiency of the active pharmaceutical product and related material companies presented in stock exchange and their stock returns.

#### The secondary hypothesizes of the research

1. There is a relation between companies' stock returns and CCR model efficiency.
2. There is a relation between companies' stock returns and BCC model efficiency.
3. The stock returns in efficient companies are not equal with inefficient ones.

#### 2.2 The research variables

##### A. Computational variables:

- Input (Input indexes):
    1. Operating expenses
    2. Fixed assets
  - Output (output indexes)
    1. Operating profit
    2. Operating cash flow
- ##### B. Statistical variables:
1. Independent variable: Efficiency
  2. Dependent variable: return

Research conceptual and administrative model is illustrated in figure 1. Research style is based on the Inferential descriptive, correlation type.

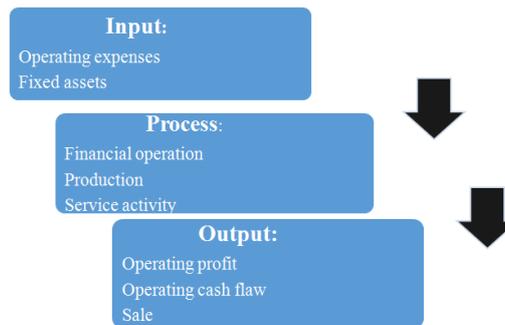


Figure 1. Conceptual model of data envelopment analysis cycle

### 2.3 Research thematic domain

The measurement of comparative financial efficiency with regard to active pharmaceutical products and related material companies accepted in Tehran stock exchange in data envelopment analysis method and investigating its relation with stock returns. Active pharmaceutical products and related material companies in Tehran stock exchange

### 2.4 Statistical society and sampling method

Statistical society of this research include all active pharmaceutical products and related material companies in Tehran stock exchange. Samples have been selected in systematic elimination method. Therefore, 18 companies have been selected as purposive sample among 26 pharmaceutical products and related material companies from 2011 to 2014. Library resources, articles, books, thesis researches and different websites have been used in order to collect information regarding theoretical principles and research literature and subject.

### 3. Data analysis method

After the company's financial efficiency via data envelopment analysis has been measured, its stock returns have been calculated as well and subsequently the relation between these two variable has been investigated.

#### 3.1 Selecting the appropriate model to evaluate companies' efficiency

After the intended inputs and outputs have been recognized, we need to find the appropriate DEA model. Through solving DEA model, efficiency of each decision-making entities (DMU) will be measured based on the related inputs and outputs. One of the most significant goals in this research is ranking the decision-making entities; therefore if we can release the entities from restrictions in order to get efficiency (more than one) as much as they can, we will be able to separate them far from their efficient envelopment level which necessitates using a super-efficient model (Anderson Peterson method). In order to adjust efficiency and performance, both inputs and outputs can be varied. In some

cases, making changes in outputs is easier while in other ones making changes in inputs is much simpler (Kodadad Hoseini and Shahtahmasbi, 2012) Hence according to the model, input or output approaches will be used for model solution. In the study of active pharmaceutical products and related material companies in Tehran stock exchange, because of the inputs nature and its manageability, selecting BCC and CCR input is the best option in order to measure the efficiency of the evaluated companies. (Mehregan, 2013; Mohammady, 2013; Seong-Jong, and Keebler, 2013)

#### 3.2 DEA Performance Method

Performance steps in this research include two parts as A and B which is as follows:

After CCR and BCC were performed and compared in part a, types of efficiency in scale of decision making entities will become clear. In part B, after CCR model was performed, companies that have scored one in efficiency will be ranked based on Anderson-Peterson model (Mohammady, 2013). In Anderson-Peterson model, based on investigated entities, limitations are removed so that the entity can get more than one in efficiency score and eventually entities will be ranked from high to low. (Shahooth and Battelle, 2014)

Companies input and output data will be analyzed based on output BCC model, then the companies will be ranked. All calculations have been done by DeaP and DEA Solver software.

### 4. Results

Measuring companies' comparative financial efficiency is conducted through data envelopment analysis. After the information related to inputs and outputs of data envelopment analysis was extracted, the companies' efficiency level was determined by the mentioned software. The steps are as follows:

1. Ranking companies with input oriented CCR: Companies input and output data with input oriented CCR is analyzed and then companies are ranked. In the table1, efficiency level of each company have been calculated per four years. (Feroz and Raab, 2012).

Table 1. The calculation of the company's efficiency (input oriented CCR)

company	efficiency			
	2012	2013	2014	2015
Cosar Pharmaceutical Co.	0.2984184	1	0.1483847	0.1353972
Osveh Pharmaceutical Co.	1	1	0.5962948	0.6501159
Farabi Pharmaceutical Co.	0.3096573	0.3641576	0.2869898	0.3556246
Sobhan Darou Co.	0.5149289	1	1	0.2815705
Loghman Pharmaceutical Co.	1	1	1	1
Pars Darou Co.	0.4052165	0.46277	0.3098395	0.367056
Rooz Darou Pharmaceutical Co.	0.2762636	0.1857993	0.2298166	0.2193414
Exir Pharmaceutical Co.	0.3265454	0.3498342	0.2265657	0.6469968

Jaber Ebne Hayyan Pharmaceutical Co.	0.4725181	1	1	1
Alborz Darou Co.	0.2976419	0.7654277	0.5662146	0.9173136

In the table 2, the evaluated companies have been ranked based on the obtained efficiency score. As it is clear, companies such as Loqman, Osveh, Sobhan darou and Jaber ibn Alhayyan have

reached efficiency score one, over one year which shows these companies were able to retain their efficiency over time.

Table 2. Ranking companies (input oriented CCR)

company	efficiency			
	2012	2013	2014	2015
Cosar Pharmaceutical Co.	5	10	3	18
Osveh Pharmaceutical Co.	3	15	18	4
Farabi Pharmaceutical Co.	2	8	2	2
Sobhan Darou Co.	10	5	12	15
Loghman Pharmaceutical Co.	12	16	6	7
Pars Darou Co.	17	11	11	8
Roos Darou Pharmaceutical Co.	14	3	9	16
Exir Pharmaceutical Co.	1	18	1	11
Jaber Ebne Hayyan Pharmaceutical Co.	11	1	17	10
Alborz Darou Co.	16	17	14	4

2. Ranking companies with input oriented BCC  
Next, companies' efficiency with input oriented BCC can be seen. All efficiencies have been calculated for each four years

separately in order to see company efficiency change over time. Finally, through efficiency average, the companies will be ranked. (Tables 3, 4)

Table 3. The calculation of the company's efficiency (input oriented BCC)

company	efficiency				Average efficiency	Overall Rank
	2012	2013	2014	2015		
Cosar Pharmaceutical Co.	0.4234228	1	0.2795438	0.2620069	0.4912434	15
Osveh Pharmaceutical Co.	1	1	0.6611885	0.6611411	0.8305824	9
Farabi Pharmaceutical Co.	0.3408334	0.440697	0.3690811	0.3710203	0.380408	17
Sobhan Darou Co.	0.5175828	1	1	0.3041088	0.7054229	11
Loghman Pharmaceutical Co.	1	1	1	1	1	1
Pars Darou Co.	0.4076104	0.5930593	0.3167724	0.3722524	0.4224236	16
Roos Darou Pharmaceutical Co.	0.3088312	0.2436368	0.2474926	0.2271774	0.2567845	18
Exir Pharmaceutical Co.	0.5334347	0.5363887	0.3847134	0.6737693	0.5320765	14
Jaber Ebne Hayyan Pharmaceutical Co.	0.6473733	1	1	1	0.9118433	6
Alborz Darou Co.	0.373954	0.8145594	0.6219181	0.9305734	0.6852512	12

Table 4. Ranking companies (input oriented BCC)

company	efficiency			
	2012	2013	2014	2015
Cosar Pharmaceutical Co.	5	8	4	16
Osveh Pharmaceutical Co.	14	10	6	6
Farabi Pharmaceutical Co.	10	13	8	9
Sobhan Darou Co.	15	9	17	1
Loghman Pharmaceutical Co.	13	1	13	11
Pars Darou Co.	16	15	2	2
Roos Darou Pharmaceutical Co.	8	12	10	12
Exir Pharmaceutical Co.	1	7	15	3
Jaber Ebne Hayyan Pharmaceutical Co.	4	16	3	17
Alborz Darou Co.	2	3	12	7

In the table5, return has been obtained compared to intended companies scale by DEA Solver software.

Table 5. Returns to scale of company

company	Type of Returns to scale			
	2012	2013	2014	2015
Cosar Pharmaceutical Co.	additive	fixed	additive	additive
Osveh Pharmaceutical Co.	fixed	fixed	additive	additive
Farabi Pharmaceutical Co.	additive	additive	additive	additive
Sobhan Darou Co.	decreasing	fixed	fixed	additive

Loghman Pharmaceutical Co.	fixed	fixed	fixed	fixed
Pars Darou Co.	additive	decreasing	additive	additive
Roos Darou Pharmaceutical Co.	fixed	fixed	fixed	fixed
Exir Pharmaceutical Co.	additive	additive	additive	additive
Jaber Ebne Hayyan Pharmaceutical Co.	decreasing	fixed	fixed	fixed
Alborz Darou Co.	additive	additive	additive	decreasing

For companies faced with increasing return over scale, if there were an input increase possibility, they could utilize the economies of scale.

Because most companies' return over scale were varied (decreasing or increasing), BCC model is more appropriate to evaluate companies' efficiency. After that, the companies which

have efficiency one for at least two years in BCC model with Anderson-Peterson model (Superefficient) will be evaluated in order to be ranked more accurately and their efficiencies will be calculated. The obtained results are in the table6. In the last column there is the four-year efficiency average. (Thore et al., 2011)

Table 6. Super efficient calculation table (Anderson-Peterson)

company	efficiency				Average efficiency
	2012	2013	2014	2015	
Cosar Pharmaceutical Co.	0.5452263	2.0415683	1.9150624	-0.838394	1.500619
Osveh Pharmaceutical Co.	3.002181	2.4053681	2.622131	2.5101016	2.6349454
Farabi Pharmaceutical Co.	0.8304402	1.4690041	5.5083173	1.2749391	2.2706752
Sobhan Darou Co.	1.280646	1.5767405	0.6524194	1	1.1274515
Loghman Pharmaceutical Co.	1	1.1858594	1.1588819	0.5596137	0.9760888
Pars Darou Co.	1.0317817	1.2698021	1.1793989	1.0312856	1.1280671
Roos Darou Pharmaceutical Co.	1.0909121	1.3980806	1.2994392	1.6354465	1.3559696
Exir Pharmaceutical Co.	1.1337233	1.178556	0.2872226	0.0979365	0.6743596
Jaber Ebne Hayyan Pharmaceutical Co.	0.2913225	1.0514701	1.0797343	1.255028	0.9193887
Alborz Darou Co.	1.3424303	1.5805901	7.02843	-0.255864	3.3171501
Sobhan Pharma Group Co.	1	1	1	1	1
Iran Darou Co.	1.0843695	0.6867413	1.0087545	1	0.9449663
Zahravi Pharmaceutical Co	1.0638108	1.027298	1.192281	1.3676478	1.1627594
Kimi Darou Co.	1.046976	1.2998586	0.7644676	1.0574233	1.0421814
Abo Reyhan Pharmaceutical Co	0.4597935	1.2835759	1.1988004	-2.765988	0.0440455
Sina Pharmaceutical Co	9.9531374	1.0165473	4.1637344	1.1210478	4.0636167
Razak Pharmaceutical Co	0.5853602	1.1236185	1.0331864	0.6011799	0.8358363
Dr. Abidi Pharmaceutical Co	1.0514701	1.2994392	1.0312856	1.1588819	1.0909121

Now all information related to stock returns and efficiency based on data envelopment analysis has been determined. In this step the relation between stock returns and active pharmaceutical products and related material companies in Tehran stock exchange will be investigated.

## 5. Hypothesis test evaluation and description

### 5.1 The main hypothesis

Test result shows that there is a direct relation between the stock returns and the companies' efficiency. It means the more effort the managers make to increase their companies' efficiency; the higher stock returns will be experienced.

### 5.2 The first sub-hypothesis

Based on test findings, there is a direct relation between stock returns and the companies' efficiency with CCR method. It means the closer the efficiency is to number one, the better result they will have.

### 5.3 The second sub-hypothesis

Based on test findings, there is a direct relation between stock returns and the companies' efficiency with BCC method. It means the closer the efficiency is to number one, the better result they will have.

### 5.4 The third sub-hypothesis

In data envelopment analysis, the software outputs are between zero and one. If the calculated efficiency of a company equals one, the company is efficient, otherwise it is inefficient.

A limitation of data envelopment analysis method is if companies are efficient, they are all scored one that means they are efficient enough while their efficiency cannot be similar to each other in practice. Therefore, companies with efficiency score one for over a year are investigated with Anderson Peterson model beyond data envelopment analysis. Results of the test shows that significance level of the company return is more than 0.05 so its normality will be approved. Then variations were investigated using Levin test. (Khajavi et al., 2005; Kodadad Hoseini and Shahtahmasbi, 2012).

Test results represent that significance level of Levin test for all variations are over 0.05. So the hypothesis of equality of variations are approved.

Besides, the significance level of t Steve dent test for stock returns variation is less than 0.05 that rejects the hypothesis that efficient and inefficient companies returns are equal by %95 confidence. Regarding all mentioned issues, the hypothesis is accepted.

## 6. Conclusion

The hypothesis was tested for a period among 2011-2014 using Regression method. Findings show a significant and a stable relation between return and efficiency of the companies during

the given period. As a result, focusing on efficiency will increase stock return for the following year. According to the present research findings, following suggestions are proposed respectively:

#### To securities and exchange organization

It is proposed that a list of efficient and inefficient companies is presented to investors in order to direct investments in better ways as well as get them more profits.

It is proposed that efficiency and inefficiency is used as one of the evaluation standards in performance of accepted companies in securities and exchange organization.

#### To investors

It is proposed that as investors, they request this factor from those companies and projects in which they invest in order that they experience lower risks and more efficient investment.

#### To managers of this industry

Regarding to the deep effect of efficiency in obtained outcome of organization effort, it is proposed that managers include this criterion into their organization strategic plan.

Since the most significant part of inefficiency is because of ignoring education, survey work, timing and so on it is proposed that managers consider this important point that their stock returns and subsequently their investors will be increased with efficiency increase.

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## LEGISLATIVE REVIEW OF GENERAL AND SPECIFIC CRIMINAL LAW, CYBER CRIMES CRIMINAL LIABILITY, AND INTRUDING ON INDIVIDUAL PRIVACY IN CRIMINAL LAW

<sup>a</sup>ALI KASRAY KERMANSHAHI, <sup>b</sup>MEHDI SALIMI

<sup>a</sup>*Department of law, International Branch, Islamic Azad University, Bandar Anzali, Iran*

<sup>b</sup>*Department of law, Qaemshahr Branch, Islamic Azad University, Qaem Shahr, Iran*

Email: <sup>a</sup>Ali\_Kasray@yahoo.com, <sup>b</sup>Mehdi.salimi.55@gmail.com

**Abstract:** The current paper investigated the terms of criminal liability in cases of cyberspace crimes. The reason for investigation of instances was that we found it tough to provide a definition of the crime since these crimes cover a wide range without a single issue and cannot be addressed in the context of a concept to define. Moreover, we examined legislative aspects of general and specific criminal law. Finally, it should be noted that the current paper mainly focuses on crimes against public morals and ethics occurring in cyberspace.

**Keywords:** Crime, Cyber space, Criminal liability, Ethics, Computer, General, Specific

### 1 Introduction

Legal rules evolve and progress as other sciences. Legal research contributes to the development of legislation by addressing those aspects of reality overlooked by legislators with a big share in amending legislation. It seems that the violation of morals and ethics concepts in cyber space is less taken into account and the legislator is required to address them. Some cyber crimes are more important than the others, because directly contribute to ethics and morals and face families with serious crisis. The current paper seeks to provide answers to the following questions:

1. Is there any criminal liability in cybercrimes?
2. Can we say cybercrime is affecting public morals?
3. What is the legislative approach in the legislation against these crimes?

Accordingly, we reviewed legislative of general and specific criminal law, cyber crimes criminal liability, and intruding on individual privacy in criminal law.

### 2 The concept of cyber crimes

There is no commonly agreed single definition of "cybercrime". The first organization to initiate cyber crimes definition was the Organization for Economic Co-operation and Development (OECD) through a group of experts gathered at the invitation of the organization in 1983 in Paris. They defined cybercrime as "Misuse of computers, including any illegal, unethical or unauthorized behavior of automatic processing and transmission of data." The misuse of computer is the cybercrime in the provided definition, although the definition does not explicitly refer to. Another definition of cyber crime reads: "Any positive illegal action uses computer as a tool or thread is a cybercrime". The above definition is not satisfactory and comprehensive because refers only to the material element of the crime and overlooks other elements of the crime as well as instances of cyber crime. Germany's Federal Criminal Police Office provided the definition of cybercrimes: "Computer crime encompasses all things, conditions and qualities in which forms of electronic data processing are used as the tools or target of committing a crime or as the basis for the suspicion that a crime has been committed". Also under the US Ministry of Justice "any act of violation of the penal code that requires knowledge of computer technology to commit the act, track or trial is a cyber crime".

### 3 The concept of liability and its variants

Dehkhoda dictionary defined the term as guarantee, responsibility, obligation, accountability and being aware of responsibility. Liability can be classified into two civil and criminal responsibilities, the civil liability discussion is out of the article scope and the current paper addresses the criminal liability. Lawyers have taken criminal liability in two different ways; one meaning constitutes "the liability to bear the criminal consequences" and the other "coercion to bear the criminal consequences". The former represents the abstract aspects of liability while the latter is the indicator of concrete aspects of the liability. Moreover, Imputed Liability is a kind of liability assumed as the liability of the person (whether natural or legal) without having all real terms of criminal liability ranging from spiritual to objective conditions alleged to be responsible. We discuss criminal liability in cyberspace, thus it requires articulating the challenges in cyberspace law and criminal liability.

Many legal scholars believe that the Cyber Crimes concept has created serious challenges to the traditional model of criminal law, so that the current criminal law is not capable to deal with problems that arise in cyberspace. In general, criminal law in principle is based on historical cultural and social community facts and shaped by certain social realities over the centuries. When, conflict arise over time criminal law is not be able to solve the problems (Kashian, et al., 2005). Basic features of cyberspace and cybercrime includes extensiveness, universality, hidden, the selectivity of information, lack of control, lack of vicinity of the perpetrator and the victim, the prevalence of crime and victimization, ease of crime, survival of criminal phenomenon, the extent of harm caused by crime, as well as detection, investigation and prosecution complexities. In fact, criminal law tries to apply preventive strategies with certainly less cost, more secure and more effective than persecution of the criminal instead of applying the traditional rules of law, due to the characteristics of cyberspace; and this is why non-criminal prevention methods are priorities. In the meantime, particular attention to technical solutions that unlike educational strategies are easier to receive binding nature without a long time required for institutionalization gain special importance. Clearly, this is also causing major developments in the area of liability, of course, the preventive measures task put some liability on others and the decentralization of liability of the main perpetrators makes others bear part of the liability.

The current paper has classified the contents into two sections, described the concepts and general discussion on the issues;

Cyber Crime General Criminal Law, Cyber Crime Specific Criminal Law

#### 4. Cyber Crime General Criminal Law

##### 4.1 Components of cyber crimes

###### 4.1.1 Legal element

1. Production, reproduction, distribution and storage of unauthorized works

Legislator in Article 3 of the Law (2007) has shown specific approach with a harsh response to the factors involved in audiovisual works contrary to public morals and ethics (the spread of non-ethical).

#### 4.1.2 Material element and the realization of forms of crime

Legislator in the above-mentioned Article (Article 3 paragraphs and notes) provides the realization of the different elements of the crime, the subject of this article. The form can be divided into 18 types in the study of the behavior of the material elements of the crime. The author tries to clarify the facts on different forms of crimes through the provided explanations in terms of the factors involved in crime and the type of material behavior given various punishment to each category that in some cases is two-fold as the cases may be explained below:

- 1 Distribution: distribute, disburse, divide
- 2 Proliferation: to add, multiply
- 3 Effect: signs, logos and symbols remaining from anything, remains of serious or practical work
- 4 Production: create, procreate
- 5 Rape: literally means contrary to tolerance, and the so-called criminal law action of forcing someone to do something without their consent, whether by action or material incentives, or not.
- 6 Reluctance: in criminal law is the impact outside force on the offender so that it is usually impossible to resist.
- 7 The key factors of production of audiovisual works: include producer (investor) director, camera person, cast the main roles
- 8 Wholesale: The number of more than copies of tape or CD
- 9 Vulgar: vulgar audiovisual refers to works that have scenes and forms and content against Islamic law and ethics to promote and conclude. (Note 1, Clause b of Article 3)
- 10 Publish: publishing vulgar audiovisual through electronic communication and computer or other similar means and techniques is an example of multiplication and dissemination.
- 11 Pornographic: pornographic audiovisual are those with female nudity or genitalia or sexual intercourse contents.

#### 4.1.3 Mental element

The offenses set forth in article 3 of the Act of 2007 and according to enumerating the various types as a material element of the crime, all alternatives are essentially spiritual elements a deliberate crime and obtaining the malicious intent to commit is necessary.

Of course, in some cases, the legislator specifically identified examples of corruption on earth the accused is sentenced for the offense (corruption on earth) that the spiritual element of the crime of corruption on earth should adhere to the same principles that according to Article 183 of the Islamic Penal Code, in hadd, creating fear and deprivation of liberty and security of persons as criminal intent must be established.

#### 4.1.4 Enforcement

Names Act 2007, after the study of the law, particularly Article 3 of this law clearly come to the conclusion that Law-makers hastily wrote enforcement of criminal laws associated with it, a kind of haste in legislation (substantive) and also in composition (form). An example may be the crime of "key factors of production". In an assumptions, they are not subject to as a corruptor on earth and the legislator has inadvertently forget a sanction for perpetrators of behavior while legislator has provided sentence to the secondary factors of production in Note 3, Clause (a), Article 3, but main factors that normally should be punished more severely than non-original elements have been overlooked. And another example of audiovisual "producer" less than 10 copies, that legislator has criminalized the act again, but inadvertently does not provide any penalty. In some special

circumstances, the legislator intensifies some of the penalties. Note 3 Paragraph B of Article 3 reads:

[Use of minors for maintenance, display, supply, sale and proliferation of unauthorized tapes and compact discs under this Act, causes the maximum penalty prescribed for the agent]. Therefore, pursuant to the above provisions, the use of minors in the cases mentioned above leads to the exercise of maximum punishment. It should be noted that tapes and compact discs shall be described as "illegal" or otherwise they are not subject to the provisions of this Note as maximum penalty prescribed.

Also note that there is no mention of offenses against the dignity of people in the Budapest Convention on Cybercrime, but Iranian legislator's attempt to criminalize such acts are properly is important. This category of cyber crimes includes three categories of offenses; first as defamation by publishing fake audio and video content, second, as people defamation by publishing the secrets of their private computer, and publishing lies, each with legal, material and spiritual component, which we will refrain from mentioning them due to limitations.

### 5 Cyber Crime Specific Criminal Law

First we discuss crimes against morality and ethics and then turn to cybercrime punishment.

#### 5.1 Crimes against public morality and ethics:

According to the provisions of our law of Islam, crimes against public morals and ethics are not limited to the publication of images of people younger than 18 years and criminalized of all acts incompatible with chastity. For this purpose has taken into account three criminal cyber crimes against chastity and public morality. The first is production and distribution of contents contrary to public morals. Legal element of the crime is Article 14 of the Cyber Crime and its amendments. It provides: Everyone publishes, distributes or deals pornographic content by computer systems or telecommunications and data carriers, or produces or stores to trade or corrupt will be punished by Ninety-one days to two years imprisonment or a fine of five million Rials (5,000,000) to forty million Rials (40,000,000) or both.

The second is to provide grounds for facilitated access to the obscene or vulgar contents that is the legal element of the Article 15 Clause (a) of the Cyber Crimes Law that provides: Whoever organized by computer or telecommunications, and data carriers, committed the following acts, will be punished as follows:

(a) Whoever stimulates, encourages, threatens or bribes or tricks, facilitates access to or teaches people in order to achieve pornographic content is subject to imprisonment of ninety-one days to one year or a fine of five million Rials (5,000,000) to forty million Rials (40,000,000) or both. Committing acts of vulgar content results in a fine of two million Rials (2,000,000) to five million Rials (5,000,000).

The third is providing grounds for committing acts contrary to chastity or moral grounds through computer systems or telecommunications that is the legal element of the Article 15 Clause (b) of the Cyber Crimes Law that provides: Everyone committed the following acts through computer systems or telecommunications and data carriers will be punished as follows:

Whoever stimulates, encourages, threatens or bribes or tricks, facilitates access to or teaches people drug abuse, suicide or sexual relations is subject to imprisonment of ninety-one days to one year or a fine of five million Rials (5,000,000) to forty million Rials (40,000,000) or both.

## 5.2 Crimes against accuracy and integrity of data

Legislator in this category of computer crimes has predicted three general headings: computer forgery, destruction and disruption of data or computer systems and, theft and computer fraud. Computer forgery as is a crime against accuracy of data, destruction and disruption of data or computer systems is a crime against integrity of data and telecommunications systems. Theft and computer fraud also investigates the theft and cyber fraud (Qadir Golkarian et al., 2005).

At the end we briefly refer to the competence jurisdiction of the criminal courts on non cyber crimes, because determining the competent court either plays a major role either in the realm of domestic or transnational in scope, location and geographical borders. The discussion of cyber space shows the without border nature of the space regardless of geographical location and thus theories based on geography and borders on the non-cyber crime cannot govern issues of the crimes committed in its realm. Therefore it is necessary to provide theories and new rules in addition to the rules governing the jurisdiction of courts in the non-cyber crime problem to express rule to determine the competent court for crimes committed in cyber space.

However, it may be possible to observe some traditional theory despite the disparity of them with special features of cyber crimes as its non geographical borders nature. While others such theories, has little relation with the offense, may be fully applicable on cybercrime. However, the jurisdiction or actual support is created based on the outcome of the offense and the danger created for a particular country, and the location and method of committing plays no special rule in determining the competent court which is fully applicable on cybercrime. So, non cyberspaces theories have been proposed with other criteria expression and analysis in expressed theory in terms of crime competent jurisdiction in cybercrime.

## 6 Overview of cybercrime on social networks

The social networking technology is undeniable phenomenon with public welcome due to its ease of communication and many facilities. Misusing social networks especially Facebook, Instagram, and Telegram and. etc. are on the rise in line with the increasing use of cyberspace. The abuser usually intrudes on cyberspace by hacking sites or personal profiles or stealing personal information and or offering insults and threats or publishing personal photos and videos. Thus, given the novelty of computer crime, the prosecution of offenders and complain and track and prove of this crime requires detailed information on the law as well as that of the cyber domain. Common the social network crimes include:

- a) Content against public morals and ethics
- b) Content against security and public peace
- c) Content against Islamic sanctities
- d) content about cybercrime
- e) Provocative content, promotes or inviting to criminal acts
- f) Criminal content related to audiovisual and intellectual property
- g) Criminal content related to presidential and parliamentary elections

More recently, Telegram cybercrime is also added to the list of examples of cyber crime, because this is a newly launched computer network. Telegram Social Network has opened a new place in Iran with a growing internet marketing crime rates in such a short time, and measures should be taken in this regard.

Telegram penetrated in large among individuals, and thud along with the many opportunities in the social network, we discern abundant and sometimes irreversible threats, as well.

## 7 Conclusion

At the end, we conclude that identification of the crimes in cyberspace and pillars and principles of liability and the conditions for its perpetrators along with the legislation can contribute to the process of preventing and reducing cyberspace crime. Accordingly, the crimes occurred in cyberspace are formal and coordinated efforts to deal with a cybercrime will be complex and complicated if different countries judicial systems do not provide the same definition of cybercrimes. Moreover, domestic reactions and dealing with a cybercrime do not suffice, and International Coordination is essential in this regard. Regarding crime detection, Police and judicial authorities are required to gain full knowledge of computer in the investigation and judgment. It would involve providing the necessary technical facilities, trained investigators in the field of computer and issues related to data and information as well as regulate the procedure by cybercrime. The jurisdiction procedures should determine the investigating authorities and judges on how to achieve the information contained in a computer environment to detect and prosecute computer crimes and gather evidence. Also, to provide resources with the admissibility of evidence of arrest and trial of the perpetrators of such offenses so that to prevent intruding on individual's privacy and freedoms.

The most serious action that has been done in the realm of cybercrimes is the Fighting computer crime judiciary bill prepared in 2002 that the bill was not passed and ratified by General Assembly. However, legislation in 209 on the subject of the current treatise has already helped accelerate the pace of this process. Finally, in the current paper, we concluded on the policy of Iran regarding the cybercrime to prevent the criminal and non-criminal occurrence of the crimes by investigating elements of the material and psychological conditions of cybercrime and its penalties, as well.

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# INVESTIGATING THE RELATIONSHIP BETWEEN CYBER LOAFING AND JOB PERFORMANCE IN AYANDEH BANK BRANCHES OF GUILAN, MAZANDARAN AND GOLESTAN PROVINCES, IRAN

<sup>a</sup>FARID ESMAEILI, <sup>b</sup>NOROUZ IZADPANAH,  
<sup>c</sup>FARKHONDEH YEGANEH DELJOO

<sup>a</sup>Department of Management, Astara Branch, Islamic Azad University, Astara, Iran

<sup>b</sup>Department of Management, Astara Branch, Islamic Azad University, Astara, Iran

<sup>c</sup>Department of Management, Astara Branch, Islamic Azad University, Astara, Iran

Email: <sup>a</sup>Farid.Esmaeili35@gmail.com,

<sup>b</sup>bezaadpanah2002@yahoo.com, <sup>c</sup>f.yeganehdeljoo@gmail.com

Abstract. Statistical population of the present research consists of the Ayandeh bank employees. The ACHIEVE model (Hersi & Goldsmith 2014) standard questionnaire and a cyber-loafing questionnaire was used to collect data. In order to check the normality of data, the Kolmogorov- Smirnov test was used. And also the confirmatory factor analysis was used in order to evaluate the questions of the questionnaire, and structural equation modeling was used to investigate the hypothesis of the research. The results indicated that there is a significant relationship between the employees' attitude to cyberloafing and job performance, the perceived cyberloafing barriers and the job performance and the descriptive norms of cyberloafing and job performance in Ayandeh Bank Branches.

Keywords: Cyber Loafing, Job Performance, Ayandeh Bank.

## 1 Introduction

Job performance is the most critical topic in every organization. In order to reach to organization goals, every organization expects acceptable level of job performance from employees. Considering this issue is essential for organizations Ghafoorian and Faramarzi, (2010). (Belanger and et al, 2002 & Block, W, 2001). Information and communicational technologies are among the tools entered the job context in order to improve the job performance. But this also creates means for employee's leisure times in the working times. In other words, availability of technologies in the organization is like a double edge sword. However, while some organizations use electronic systems in order to communicate, collaborate, research and data management in some cases many employees abuse these technologies (Baturay & Toker, 2015) and/or use it for their own personal matters. This topic i.e. cyber loafing catches the attention of academia and managers of organizations in recent years. According to some researchers, one of the consequences of cyber loafing is the decrement of employees' job performance (Blanchard & Henle, 2008). Considering the importance of job performance for managers so that they also trying to find ways for improving it, so the cyber loafing can be a preventing factor or a barrier in job performance and this issue catches the attention of managers Yilmaz et al., (2015). Regardless of the amount of spending time as cyber loafing in organizations, the fact is that it is so much which regarded as a challenge for organizations. It means organizations concern that this issue would have negative effects on the productivity of the organization (Mastrangelo, 2006; Jia, 2008). Accepting the provided definition by Lim, i.e. "cyber loafing occurs when the employee uses the net for non-business means in business hours", it is easy to explain the objective of this research. So the present research aims to study the intensity of the relations between cyber loafing and job performance of employees. Considering the applied attitude of the present work, the relationship between cyber loafing and job performance of Ayandeh Bank employees examined.

### 1.1 Theories on Cyber loafing

On the whole, cyber loafing refers to the act of employees using their companies' internet access for personal purposes during working hours. But it should be noted that there is not a common definitions for cyber loafing among the scholars (Lim, 2002).

Some researchers used the term cyber loafing to indicate serious behaviors such as hacking and spreading computer viruses (Blanchard & Henle, 2008) although these radical behaviors are interesting topics for research, but their causes and consequences are different and should be investigated in a separate study. In the present study, cyber loafing refers to internet access of employees in working time such as YouTube, Facebook or personal internet searches. The reason for using such a simple definition for cyber loafing is that it is better to start the topic with a simple definition of the term in order to create a correct and better understanding of this phenomenon in the mind and then, discuss the different aspects of cyber loafing. We should consider two issues in defining cyber loafing. First, cyber loafing can be carried out not only by computers but also by smart phones and tablets. So in order to prevent the complexity of the term, we narrowed our definition of cyber loafing to use computer in office for personal matters and cyber loafing.

As mentioned, one can cyber loaf using tablets of mobile phones. For example, sending SMS is so widespread in work places that imagining an employee does not send SMS during work time is unlikely to happen. Augrin et al., (2013) defined cyber loafing as abusing internet in the work times. They believed cyber loafing is using internet for personal purposes more than necessary. Examples of cyber loafing can be online shopping, personal investment management, using social networks, sending emails and listening audio files or watching videos online. Yilmaz et al., (2015) defined it as using internet in work time in order to fulfill personal objectives. Wilson et al., (2010) in a similar definition defined it as pretending doing company works while fulfilling personal objectives in internet.

### 1.2 Types of Cyber loafing

Blanchard (2008) categorized cyber loafing in two different for;

1. Minor cyber loafing
2. Sever cyber loafing

Minor cyber loafing includes items such as checking personal emails but in sever cyber loafing, person does time consuming and negative activities such as viewing adult oriented sites, online gambling and such cases. They believe controllable cyber loafing is not only harmful but also can be regarded as break time and rest time activities and can improve job performance but in case of sever cyber loafing which is a dangerous one and there should be clear rules regarding this kind of cyber loafing and should be regarded as a destructive organizational behavior and against rules (Blanchard & Henle, 2008).

### 1.3 Effective Factors on Cyber loafing

Different variables introduced as the creating factors of cyber loafing and have higher integration in the emergence of this phenomenon. Factors such as social norms, personal attitude to cyber loafing, hiding cyber loafing from managers and supervisors and objectives of cyber loafing (Askew et al., 2014). Also two other variables i.e. responsibility and organizational justice have strong relationship with cyber loafing (Restubog et al., 2011) It is noted that the effect of these two variables on cyber loafing strongly affected by the work condition, it means that in some studies a strong relationship is reported between these variables with cyber loafing and in some other weak relationship is observed (De Lara, 2007). This incoherency can be due to the fact that although nonconformity of organizational justice is a determining factor on cyber loafing, but nonconformity of social justice among the people under survey was not so much to be introduced as a causing factor for cyber loafing. The strong relationship between loyalty and cyber loafing confirm the self-control theory introduced by Wagner et

al. (2012). The incoherency of correlation between loyalty and cyber loafing in different studies can be due to the different amount of work in different samples of the study, i.e. when the employee has not so much work to do then the effect of self-regulation and cyber loafing is not so strong.

Moreover, there are some other factors though they are less important but can be related to cyber loafing namely as personality, emotional non-planned works, extremism (Jia,2008; Krishnan et al., 2010).

Also it has been observed that the individual skills in using computer have direct relationship with cyber loafing (Garrett & Danziger, 2008). Moreover, some other factors such as company's supervision on employee's internet access, performance bond of non-cyber loafing rules, policies of the company regarding internet and having personal computers can be affective in the emergence of cyber loafing among employees (Mastrangelo,2006; Jia, 2008).As observed, age and gender can affect cyber loafing. Men and young people more than women and old people do cyber loafing (De Lara, 2007 & Garrett & Danziger, 2008 & Blanchard & Henle, 2008). Cyber loafing in educational setting is more widespread among boys than girls (Baturay & Tokar, 2015).

#### 1.4 The relationship between Cyber loafing and Job Performance

Although there is few information regarding the way cyber loafing affects job performance, but checking the available literature four perspectives can be recognized about the effect of cyber loafing on job performance.

According to the first perspective, cyber loafing decreases job performance by wasting effective work time (Blau et al., 2003). Based on this perspective the time used for cyber loafing could be used for organizational works and so the wasted time in cyber loafing resulted in decreasing the productivity. If this perspective proves true, then one can expect a negative correlation between cyber loafing and job performance.

The second perspective is somehow like the first one and stated that some cyber loafing behaviors negatively affects job performance or have more negative effects than other cyber loafing behaviors.

Lim & Chen (2009) stated that social behaviors have more negative effects on the productivity because these behaviors necessitates time, energy and perceptual resources. So abandoning these behaviors and returning to organizational works is more difficult than non-social behaviors for employee. Blau et al. reported the same result from interactive behaviors like social behaviors and online games. If such perspective proves true, then we can expect negative correlation between social behaviors and job performance. The relationship between such behaviors and decreasing productivity is stronger than the relationship between internet searching and job performance.

The third perspective has positive attitude toward cyber loafing effect on job performance. It states that cyber loafing creates a delay and rest time in business hours and when the employee returns to organizational work she/he continues more productivity (Belanger and et al, 2002 & Block, W, 2001). In this perspective it is assumed that decreasing the productivity is enough that compensate the wasted time for cyber loafing. Adherents of this perspective benefiting the Ego depletion model in order to confirm their own beliefs. If it proves true, then it is expected that a positive correlation exists between cyber loafing and job performance.

The fourth perspective stated that cyber loafing does not affect job performance or affect insignificantly (Blanchard & Henle 2008). It states that employees have specific amount of time dedicated to work and they cyber loaf when they have the time to do it. This perspective believes that the productivity of all

employees are the same and each person has a specific standard of working and cyber loafing when they have extra time to do it. If such an attitude proves true, then there is no correlation between job performance and cyber loafing. Moreover, cyber loafing creates negative effect only if it takes too long. As a general principle we can infer that long time of cyber loafing have negative effect on job performance.

To confirm each of the above mentioned principles, some evidences provided by the researchers and it is not clear cut which of the above mentioned perspectives is more correct than the other. The hidden link of all these investigation is that none of these studies evaluated in a real organization. Analyzing the cyber loafing and job performance relations let the researchers to determine which of the above mentioned perspectives explains the way cyber loafing affects job performance in real world.

## 2 Review of related Literature

Estiri (2010) wrote a review article titled as " cyber loafing". Based on this research to find out the best way to use internet access by employees is to know what exactly the employees do and how much time they spend to do it. He thinks that, results of the studies and also the idea of specialists confirms that the best way a company can do regarding cyber loafing issue, is to make comprehensive, precise and clear cut policies before employees gave access to internet.

Hengameh (2011) did a research entitled as " Studying causes and consequences of cyber loafing in Tondar Air Line Agency of Tehran". The aim of this study was to specifying the causes and consequences of cyber loafing in the air line agency and suggesting recommendations to reduce cyber loafing. The results indicated that personal, organizational and environmental / external factors are among those factors which play important role in cyber loafing. Thus it is expected from managers that have better and deep understanding of their environment and context and improve their company's performance by properly using modern technologies. Lim & Chen (2009) studied the impact of cyber loafing on the work and emotions of employees. Moreover, gender differences of employees regarding their understanding of cyber loafing was studied. Their findings indicated that activities such as internet search have desirable effect on the emotions of employees while receiving and sending email had negative impact. The obtained results of this study give novel perspective for managers and researchers regarding employee's idea about cyber loafing phenomenon. Pearson and Augrin studied the impact of punishments and preventive actions on cyber loafing in organizations. They believe that benefiting such preventive mechanisms will result in decreasing the cyber loafing of employees in business hours. The results of their study indicated that threats and diagnostic mechanisms, are effective factors in preventing activities such as visiting adult oriented sites, management of personal financial affairs and online shopping. To prevent activities such as sending and receiving email or visiting social networks simultaneously applying these preventive mechanisms are mandatory. In a study Kakolian and et al (2013), investigated positive consequences of cyber loafing in universities of Babol. Along the positive factors in cyber loafing, in this research the researcher tried to detect and present some of the positive consequences of cyber loafing in universities of Babol. Some hypothesis regarding the existence of positive relationship between the activities and behaviors of cyber loafing with job satisfaction, organizational commitment and job interest were tested. In order to check the relationships among variable the Pearson product-moment correlation coefficient and Structural Equation Modeling was used to calculate the amount of correlation between variable of the model. SPSS and LISREL software were used for related calculations to variables and suitability of the model. Analyzing statistical data revealed the positive relationship between job satisfaction 0.255, organizational commitment 0.451 and job interest 0.186 with cyber loafing.

### 3 Methodology

#### 3.1 Research Method

This is a kind of applied research and basically it is a kind of descriptive research and correlation one and regression analysis (Structural equation modeling) was used to analyze the data. Statistical population of the present research consists of the Ayandeh bank employees ACHIEVE model (Hersi & Goldsmith 2014) standard questionnaire and Askew cyber loafing questionnaire was used in order to collect data. The inferential and descriptive statistical methods were used. Descriptive method was used in order to check and describe general characteristic of those who answered the questionnaire. Inferential statistical methods namely normality of data test, structural equation modeling and confirmatory data analysis were used. The obtained data were analyzed using SPSS and LISREL software.

#### 3.2 Research Hypothesis

This research has one main hypothesis and three alternative hypothesizes (figure 1).

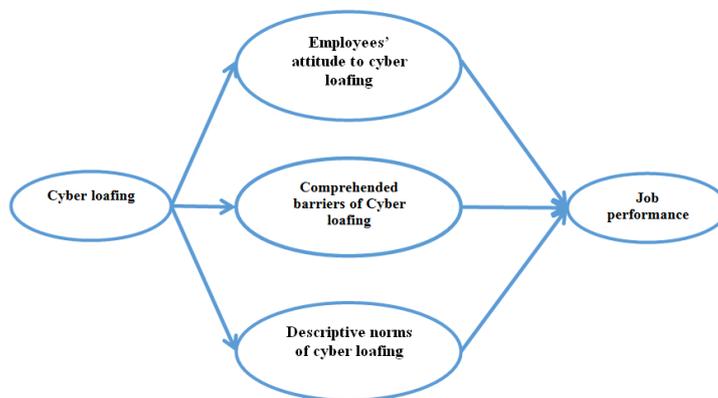


Figure 1. Schematic of research

#### 4 Data Analysis

Respondents' demographic characteristics were studied and the results are:

**Gender:** 158 of the respondents were Men (79%) and 42 were women

**Age:** 57 of the respondents were less than 30 years old (29%); 121 of them were between 30 and 40(61%); 19 of them were between 40 and 50 (8%); and three of them were more than 50 years old.

**Degree:** 12 respondents with associate degree (6%); 121 of them with BA degree (60%); 64 of them with MA degree and 3 of them with diploma or less than diploma degrees.

**Work Experience:** 82 of respondents with less than 5 years job experience (41%); 101 of them between 5 to 10 years job experience (51%); 9 of them between 10 to 15 years job experience; 8 of them with more than 15 years job experiences.

Then the normality of data tested using Kolmogorov- Smirnov technique with 5% significance level. The results are:

To check the normality of data, null hypothesis is that the data distribution is normal. So if the significance amount be higher or equal to 0.05, then there is no reason to reject the null hypothesis and distribution of data will be normal. The results of research hypothesis are:

Main Hypothesis: There is a significant relationship between cyber loafing and job performance in branches of Ayandeh Banks

Alternative Hypothesizes are as follows:

I. There is a significant relationship between the attitude of employees to cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

II. There is a significant relationship between the understanding barriers of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

III. There is a significant relationship between the descriptive norms of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

#### 3.3 Research Conceptual Model

According to the results in all cases the amount of significance is higher than 0.05; so, there is no reason to reject assumption. It means that data distribution is normal and we can use parametric tests and confirmatory factor.

Confirmatory factor analysis was used for the questions of the questionnaire. Considering the fact that the main tool of gathering data was questionnaire then all the obtained results of this research depends on the validity of questionnaire. Confirmatory factor analysis was used in order to check whether the items of questionnaire properly evaluated the variables of the research. The results are:

#### 4.1 Confirmatory Factor Analysis of Job Performance Questionnaire

To evaluate job performance 7 main factors (latent variables) and 16 questions (visible variables) were used. The acquired factor loading in all cases were a little higher than 0.2 which means the correlation between hidden variables (dimensions of main construct ) and visible variables are acceptable.

According to the results, measurement indexes for every used scales in confidence level of 5%, the t-values is higher than 1.96 which means that the observed correlations are significant (figure 2 and 3).

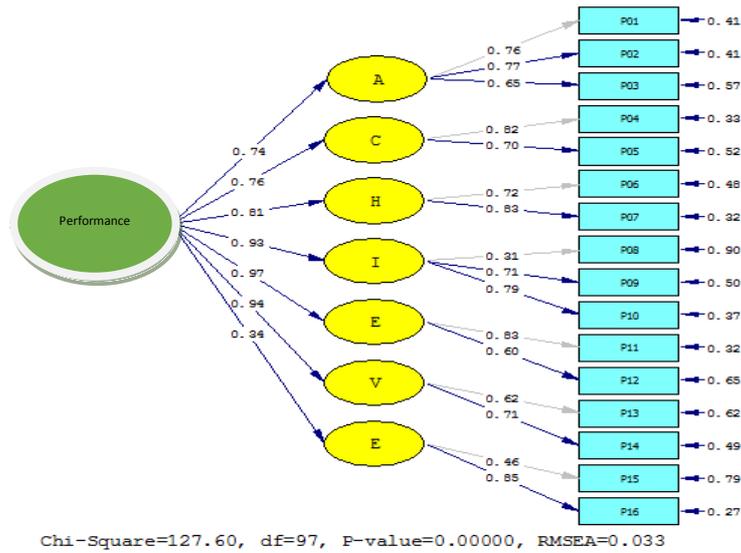


Figure2: Standard factor loading of confirmatory factor analysis for evaluating job performance scale

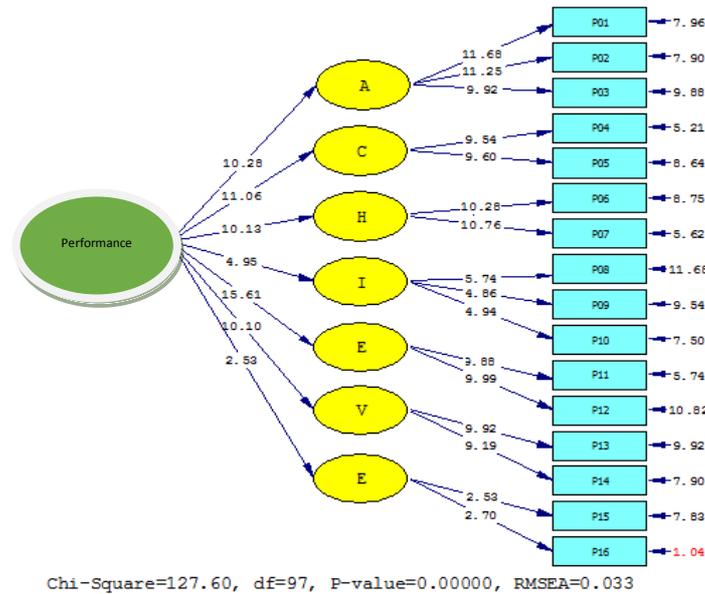


Figure3: T-value of confirmatory factor analysis for evaluating job performance scale

Also due to the use of second order confirmatory factor analysis, the relationship between hidden variable with the main construct i.e. job performance was investigated, too. In all cases, standard factor loading was higher than 0.4 which means there is higher correlational between job performance assessment and this construct. In all cases T prepared value was greater that the critical value (1.96) which means job performance was truly assessed for this construct.

In the second stage, model goodness of fit test was carried out and the result was:

$$\chi^2/df = \frac{127.60}{97} = 1.31 \tag{1}$$

In this research normal chi-squared was 1.31 and as it is between 1 and 5 then it is ideal. Also in the saturated model of the present

study RMSEA index is equal to 0.033 (lower than 0.05) which indicates the fitness of the model is ideal.

#### 4.2 Confirmatory factor Analysis Measuring cyber loafing

In order to measure cyber loafing, we used 3 latent variables (factor) and 14 observable variables (question). In order to assess the power of the relationship between factors (latent variable) with observable variables (questions of the questionnaire) standard factor loading of confirmatory analysis was greater than 0.2 in all cases. Therefore, factor construct of the questionnaire is valid. Also according to the observed results, factor loading of t-value for assessment indexes of each one of the studied cases with the significance level of 5% was a little bit more than 1.96. So the observed correlations were significant (figure 4).

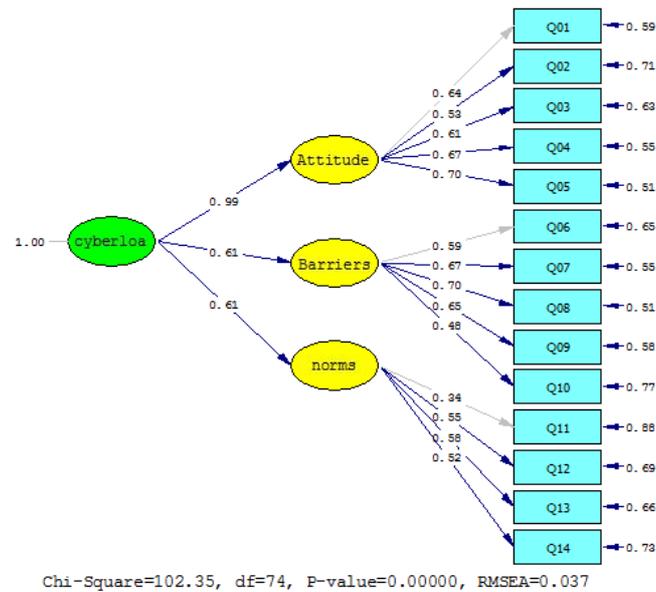


Figure4: Cyber loafing standard loading factor of confirmatory factor analysis

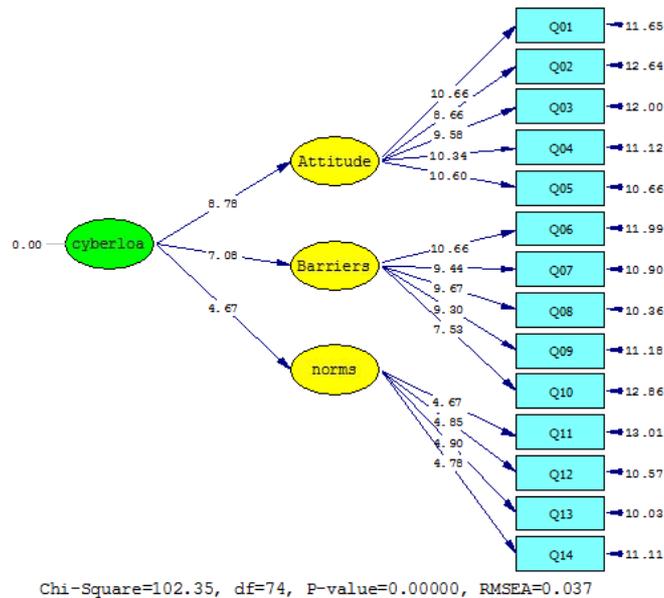


Figure5: Cyber loafing confirmatory factor analysis for t-value

Because of using second order confirmatory factor analysis, the relationship between hidden variables and main construct was investigated. The standard loading factor in all cases was a little bit more than 0.4 which indicate acceptable correlation between cyber loafing and the structure. Amount of t-value in all cases was greater than critical value (1.96) which means correctly assessment of the structure (figure 5).

After the test, research hypothesis was carried out using structural equation modeling and the results are:

**Hypothesis 1:** there is a significant relationship between job performance and employee's attitude toward cyber loafing phenomenon in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

The results obtained from investigating the relationship between two variables indicated that loading factor between employees' attitude toward cyber loafing and job performance was -0.40.

The t-value was -3.10 which greater than 1.96 was and it means the observed correlation was significant. Therefore, there is a significant relationship with 95% confidence level between employee's' attitude toward cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

**Hypothesis 2:** There is a significant relationship between perceived barrier of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

The results obtained from investigating the relationship between two variables indicated that loading factor between perceived barrier of cyber loafing and job performance was -0.35. The t-value was -2.12 which greater than 1.96 was and it means the observed correlation was significant. Therefore, there is a significant relationship with 95% confidence level between perceived barrier of cyber loafing and job performance in

Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

**Hypothesis 3:** There is a significant relationship between descriptive norms of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

The results obtained from investigating the relationship between two variables indicated that loading factor between descriptive norms of cyber loafing and job performance was -0.57. The t-value was -4.42 which greater than 1.96 was and it means the observed correlation was significant. Therefore, there is a significant relationship with 95% confidence level between perceived barrier of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

#### 4.3 Main Hypothesis of the Research: Relationship between Cyber loafing and Job Performance

Standard loading factor between cyber loafing and job performance was -0.45 and the t-value was -4.42 which indicates this relationship was significant. Therefore, there is negative and significant relationship between job performance and cyber loafing.

Also the rate of cyber loafing in Ayandeh bank was investigated and the results are:

The means of respondents' viewpoint about employees' attitude toward cyber loafing was 2.51. The significant 0.000. Therefore, the observed mean was significant. The t-values was -12.38 which was less than -1.96. Therefore, based on the statistical findings we can say with 95% confidence level that employees' attitude on cyber loafing was undesirable.

The means of respondents' viewpoint about perceived barriers was 2.02. The significant 0.000. Therefore, the observed mean was significant. The t-values was -24.18 which was less than -1.96. Therefore, based on the statistical findings we can say with 95% confidence level that perceived values of cyber loafing was undesirable.

The means of respondents' viewpoint descriptive norms was 2.08. The significant 0.000. Therefore, the observed average was significant. The t-values was -16.5 which was less than -1.96. Therefore, based on the statistical findings we can say with 95% confidence level that descriptive norms are preventive factors on cyber loafing.

#### 5 Conclusion

Cyber loafing which is defined as using a computer and net access for personal matters during business hour catches the attention of academia and managers of organizations in recent years. Some of the researches reported that decreasing job performance is one of the consequences of cyber loafing. Decreasing the job performance of employees is one of its consequences while the performance is critical for managers and continuously trying to increase it. So, cyber loafing as a preventing factor in job performance gained the attention of organizational managers more than before.

This research investigated the relationship between cyber loafing and job performance in order to offer suggestions to deal with this phenomenon.

There results of present studies are:

- Based on gender, most of the respondents were men (158).
- Based on job experience, most of the respondents have experience between 5 to 10 years.
- Based on age, the majority were between 30 and 40 years old.

- Based on the degree, the majority have the BA degree.

The relationship between different aspects of cyber loafing and job performance was investigated with three different hypotheses. The results of hypothesis test revealed that there is a positive and significant relationship between job performance and three aspects of cyber loafing in northern branches of Ayandeh Bank. Based on the observed loading factor, the descriptive factors of cyber loafing have notable relationship with job performance. There is a moderate relationship between employee' attitude toward cyber loafing and job performance and the perceived barriers in cyber loafing barely affects job performance.

- Therefore, there is a significant relationship between employee's' attitude toward cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.
- Therefore, there is a significant relationship between perceived barriers of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.
- Therefore, there is a significant relationship between descriptive norms of cyber loafing and job performance in Ayandeh Bank Branches of Guilan, Mazandaran and Golestan provinces, Iran.

The relationship between aspects of cyber loafing and job performance was investigated using three hypotheses. To evaluate the general relationship between cyber loafing and job performance we used structural equation modeling. The standard loading factor relationship between cyber loafing and job performance was -0.45 which was moderate. The t-value was -4.42 which indicate this relationship is significant. Then there is a negative and significant relationship between cyber loafing and job performance.

I. It is recommended to have certain educational programs to improve the attitude of employees on cyber loafing. Presenting statistical documents on some damages caused by cyber loafing and the negative results which ultimately affects the employees themselves (directly or indirectly) can be part of this program. This perspective which states using the internet is not pastime to end the business hours, should be boosted. The employees should know that unbridled cyber loafing will result in inefficiency of the whole organization.

II. The organization should have special contrivances to supervise and administer on the net access during business hours. Also, preventive and punitive mechanisms should be clear, in this case, preventive and precautionary mechanisms will lose their preventive nature.

III. The organization's convention and common-law should not lead the employees to cyber loaf in social networks during business hours. There should be contrivances to prohibit cyber loafing, checking personal emails and surfing unrelated websites to the work and nature of the organization during business hours and

IV. Controlling cyber loafing would result in improving job performance of the organization. If and only if the negative aspects of the cyber loafing bolded to employees and knowing that too much using on net access and cyber loafing for personal purposes in work context threaten their own and organizational success, then we can expect the cyber loafing would decrease and consequently job performance will increase.

#### 5.1 Suggestions for Further Studies

- 1) The researchers can use the designed scale to investigate the relationship between cyber loafing and job performance in other provinces.
- 2) Studying other variables relationship with cyber loafing is recommended for the future researchers. Also it is recommended to study and investigate this relationship in a mid-term period on a specific job or organization so that the results will be valid and notable.

- 3) The researchers can improve the designed scale by increasing their range of studies to recognize and modify factor and items.
- 4) It is recommended to investigate other factors influencing cyber loafing.

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## INVESTIGATION & ANALYSIS RELATIONSHIP ORGANIZATIONAL JUSTICE AND HUMAN RESOURCE MANAGEMENT SUBSYSTEMS ORGANIZATIONAL HEALTH IN ZAHEDAN EDUCATION SYSTEM

<sup>a\*</sup>MASOUD POURKAINI, <sup>b</sup>MOSTAFA MOLLAZEHI

<sup>a\*</sup>Corresponding Author, Assistant Professor, Faculty Member, Faculty of Humanities, Kerman Branch, Islamic Azad University, Kerman, Iran .

<sup>b</sup>M.A. of Public Administration, Kerman Branch, Islamic Azad University, Kerman, Iran

Email: <sup>a</sup> Pourkaini@yahoo.com, <sup>b</sup>mosi.molizadeh.mm@gmail.com

**Abstract.** One of the most important assets of the organizations is human resources, one of the factors that is important to personnel today, is organizational justice. Most direct relationship in the hypotheses test of this study, related to procedural justice and then interactional and finally distributive justice which suggests that personnel consider greater importance to the accurate implementation procedures and processes and correct division of tasks and responsibilities and also interactions and exchanges full of reverence and respect to personnel. Also the highest intensity of the relationship related to the relationship between distributive justice and the administrative health human resources improvement subsystem which shows the more effect of distributive justice to motivate the personnel to learn efficiently.

**Keywords:** subsystem, administrative health, human resources system, organizational justice.

### 1. Introduction

If review our daily life we conclude that the organizations are penetrated strongly in our lives, we are in daily contact with the numerous organizations and most people spend much of their lives in the institutions. In this way, our consideration of the organizations may be positive or negative. This understanding that comes from our personal experiences in contact with the organizations, form our understanding of the organization. This common sense tells us that we should examine the organizations in a systematic way to get more recognition of them (Iran Nejad, Parizi and S. Gohar, 25: 2006). Stability of the collaboration networks needs to provide the preparations and to notice to the type of the interactions. In the inter-organizational cooperation, justice has a pivotal role because the cooperation, is a category that shapes in social networks and one of the most important social stability, is justice (Avtarkhany 30: 2008 so that justice is a human issue that is important for people who work in an organization, other means, justice is directly linked to the job. In the organizational justice arises with what ways should have worked with Personnel to feel they have been treated fairly (Naami and Shokrkon, 2006:91). In this case, the organization goes ahead towards the health because the organizational health causes to the organization growth and improvement. A healthy organization is a place people want to stay there and work and be helpful and effective people themselves. So, the healthy schools as an organization, created the causes of the stimulation and interest in work on the teachers and in this way, raise their effectiveness (Hui and Vlfvk. (1993:128 the existence of justice whether when attracting the employees and whether after the absorption causes the growth of the programs, the continuous improvement of the organizational performance and the creation of a great force in order to synergies ,development and creation of the sublimity organizational opportunities (Poorsoltani et al, 2010: 154). Checking of the existed administrative health effects and the problems that occur in the absence of it, as the administrative corruption expresses the significance level of the research. If the administrative system, does not be safe and effective despite the good intentions of the policy makers what is realized in practice may be in conflict with those objectives and policies. The corruption and fake are phenomenon that all the countries grappling in the world with it more or less. The destructive consequences of the corruption and its conflict with the public

interests, such as wasting of the resources, slowing the economic growth and reducing the effectiveness, causes the increasing attention to the importance of this phenomenon in different societies (Habibi, 1996:27). Justice as a tangible factor can have a significant impact on the administrative health system with suitable and low-cost policies and these conditions for today's organizations and especially to Iran which have the substantiation of the twenty years old vision in mind seems a necessity

Review of carried out researches regarding the relationship between the organizational justice and the administrative health, indicates that most of these researches are done in the Industrial, the production and the treatment organizations and in the educational institutions such as schools, have been paid less to this subject , also the carried out studies on the human resources management subsystems and in particular, the administrative health of the human resources management subsystems were lower that so reveal the necessity of this study far more. In this research attempts have been made that by studying the same researches and conducting a research in the area of checking the relationship between the organizational justice on Human Resource Management System Organizational Health in Zahedan Education system, employees relations be investigated. The main question that this study deals with is that is there a significant relationship between the organizational justice and Human Resource Management System Organizational Health in Education system?

### 2. Theoretical Foundations

#### 2.1 Organizational justice

Word of the organizational justice for the first time, has been used by Greenberg in 1987. According to Greenberg the organizational justice is related to the employees' perceptions of the job fairness in the organization. He applies this term for the explanation and definition the role of fairness in the workplace. (Taheri Attar, 2008:1). Fairness and justice is a fundamental value in the organizations (Konovsky 2, 2000:37). And it is focused on how people understand fairly or unfairly the within organization events from the social viewpoint (poll, 170).2007: the organizational justice refers to the employees' perception of fairness and occupational fair behaviors (Jex & Beehr, 1999). And it pays to the judgments of individual and public of fairness or moral merit.

In the division of the organizational justice, three types of justice as, distributive justice, procedural justice and interactional or interactive justice have been proposed. Distributive justice refers to the fair distribution to employees' perceptions of the organization's outcomes. This kind of justice is based on the theory of Adams. Based on the theory of equality, individuals compare their received rewards from the organizations with their service to the organization and with other employees. In the other words, equity theory claims that people compare data rate to their output with other people to determine the level of fairness. Distributive justice reflects people's perception of the fairness observance amount in the distribution and the allocation of the resources and rewards, in other words, it implies to the extent to which people linked rewards to the performance ( Rezaeian 2010:43). While distributive justice describes fairness consequences that employees get, procedural justice expresses the fairness of the used procedures to determine the outcomes.

Procedural justice, that means a process to achieve the fair results, must be fair. That means people do not have the right and should not be able to achieve the fair results of the methods and the unfair

processes (Cohen 3, 2001:241). Fair procedures can be as signs for people that they feel they have valued and respected in the organization and can improve the balance and the confidence in the relationship with others. Interactional justice means that all communication and interaction between people must be fair on the way to achieve fair results. This means that individuals have no right to strive the unfair compromises between themselves and others on the way to achieve fair results (Rogue 4 18: 2006). This type of justice is in connection with the aspect of the communication (such as courtesy, respect and honesty) between the sender and the receiver of justice (Cohen, 2001:69). The interactional justice predicts better the job performance in comparison with the procedural justice. Procedural justice linked mostly to the organizations and organizational policies, while interactional justice is linked more with the management or the guardian) Kovartz et al., (2002:230). For the organizational justice variable, one of the most prestigious models, is the model of Niehoff and Moorman organizational justice (1993) which has three dimensions, distributive, procedural, interactional with the relevant index and the measurement takes place by the standard questionnaire (20 questions).

### 2.1.1. Distributive justice

Distributive justice refers to the judgment of the results distribution equality such as the rate of payment or the scale and the promotion opportunities in an organizational context. This theory expresses that people consider the relative balance of the desired results and compare their relative data - output with their colleagues. Rawls (1971), describes the justice conception accurately. According to him, when there is an inequality in the expectations, poor people in the organization may become worse. At this time the only thing that the organization should do, is to identify parts of the organization where distribution is done unequal, and prevent them (Corpanzo & Folger, 1991:138).

### 2.1.2 Interactional justice

Perceptions of fairness in the organization not only affected by the results, but also affected by the applied process to achieve the results as well. Procedural justice theory suggests people can look beyond the short-term decisions. So, undesirable results appear acceptable when it is thought that the applied process was fair (Greenberg, 1987:12). Justice implementation requires adopting the fair procedures. This means that regardless of whether the content of the law must be fair, the process that is supposed the justice is concluding from it also must be fair. Justice and fairness heed in the implementation process must provide equal opportunity for all.

Therefore it can be said, justice requires the rules precision and the laws implementation procedure when is fair that benefit possibility from the law easily be available to everyone. Baron and Greenberg believe that scientists have considered two aspects to procedural justice, structural aspect of procedural justice, that this aspect of procedural justice examines this phenomenon that how decisions are made to seem fair. It is important to note that this aspect does not pay to what are the decisions, but it considers that how decisions are made. About the social aspect of procedural justice, Greenberg believes that although the structural aspect of procedural justice, is very important but it does not cover issues of procedural justice, in other words when making judgments about the fairness heed in the organizational procedures, the quality of the interpersonal behavior of decision-makers with the organization personnel is considered as a key factor (Greenberg & Baron, 2000:147).

### 2.1.3 Interactional justice

The word interactional justice was used for the first time, by two researchers with names of Bayess and Moog in 1986. They believed that interactional justice is another type of justice that conceptually is distinct from distributive and procedural justice and refers to the social action of procedure. People are sensitive to the quality of the treatment with them in the interpersonal relationships and also to the structural aspects of the decision making process (Rezaeean, 2005:59).

Interactional justice suggests that the quality of interpersonal behavior during the procedures is important and effective in determining the fair judgments. Justification or presented explanation is effective in the perception of fairness and increases this probability that the fair decision-making procedures are considered fairly. Interpersonal behavior includes trust in people's relationships and behaviors with humility and respect. Good shape of the procedures is defined as five behaviors: enough attention to personnel data, prevention of personal prejudice, consistent use of decision criteria, Timely feedback, justification a decision. These factors play an important role in the personnel perceptions of equality, acceptance the decisions and orientation towards the organization (Konovsky & Cropanzan, 1991:702). Interactional justice can have two dimensions: Interpersonal dimension, that shows that behavior must be politely and respectful. Managers should show a behavior of trust and respect when dealing with their personnel. A second dimension is expectations and social responsibility. With people justification adequately, people's tolerance power of an unfair result become more. This means that people's expectations of heed of one aspect of the organizational justice can affect the personnel behaviors to the reaction to heed the other aspects of the organizational justice (Corpanzo & Greenberg, 1997:330).

### 2.2 Organizational health

A healthy organization is a place where people want to stay there and work, are proud of the organization and they are useful and effective themselves. Parsons in the definition of the organizational health, expresses all social systems for survival and development, must adapt themselves to the environment, mobilize their resources to get their own purposes, co-ordinate their activities. And motivate their personnel and in this case, health of them is guaranteed (Hoy & Wolfolk, 1993:265). In Miles opinion, the organizational health refers to the situation beyond short-term efficacy of the organization and refers to set the relatively enduring traits that are the sustainability and survival of the organization in their environment, compatible with it, and upgrade and expansion of the organization's ability for the greater compatibility (Jahed, 2005:94).

If the organization wants to survive and expand, should solve the problem of compliance, goal acquisition, a unity and invisibility. Organizations must obtain sufficient resources and adapt themselves to the environmental demands (compliance), define their goals and do (goal acquisition), maintain the union solidarity among personnel (unity) and maintain and renew the cultural patterns and motivations of the organization climate (continuity) (Beikzadeh and Bayrami A. Luyee, 2005:68). Hoy and Myskel (1971) have defined the organizational health in seven dimensions that form the pattern of interaction and behavior within the organization. Institutional level; the institutional integration in an organization programs, means the understanding of the personnel interests and the organization's ability to adapt to its environment (institutional requirements).

Administrative level; refers to organizing, task-oriented and success-oriented behavior. Manager specifies his expectations,

maintains rigorous standards of the performance (tools need). Consideration, shows managers friendly, supportive and open behavior, (expression need). Manager influence refers to the manager ability in influencing its superiors, manager works effectively with influential to its local director (tools need). Resources support, refers to the organizations that have the necessary resources for effective action (tools need). Technical level and spirit, refers to the sense of community, openness and trustiness between managers and personnel (expression need). Scientific emphasis refers to the organization emphasis to personnel learning. Managers believe the ability of personnel to success in learning and respect them (tools need). Leiden and Klyngl (2000), write in conjunction with the organizational health, organizational health is a new concept includes not only the organization's ability to perform tasks effectively, but also the organization's ability to grow and improve (Nazem et al., 2010:145). According to Lynden and Klyngl model a total of eleven components are provided for the organizational health (separated dimensions related to each other).

1. Relationship: in healthy organization continuous communication between personnel and as well between subordinates and elites must be facilitated. In the organization face-to-face discussions are equally important as same as documents.
2. Participation and involvement in the organization: in a healthy organization personnel at all levels appropriately are involved in the organizations decisions.
3. Credibility or reputation of the institution: a healthy organization reflects the perceptions of the credibility and positive reputation to the personnel and the personnel in general value for the credibility of its domain or a part of it.
4. Spirit: appropriate mood is shown in an organization by the friendly atmosphere where personnel often love each other and their jobs and overall they are excited, personally, and for the organization.
5. Loyalty and commitment: high trust has always been in a healthy organization, there personnel waiting to come and work and have a good sense of their work in the organization.
6. Ethics: in a healthy organization ethics has a special place personnel tend to value for the ethics
7. Identification or recognition of performance: in a healthy organization personnel are encouraged and feel that they are valuable, manager select these kinds of personnel for the improvement of the organization.
8. Purpose: in a healthy organization objectives are clear and personnel activities of is accordance with those objectives. Personnel are also involved in setting the organization's objectives
9. Leadership: Leadership is considered the determining factor in profitability and effectiveness of the organization. Leaders often have friendly behaviors and personnel can easily communicate with them
10. Improvement or development of personnel efficiency: in a healthy organization environment often there is a special group to support education and improvement of the action of the force
11. Use of resources: personnel need to see that the resources are properly divided between them (AlagheBand, 1999:237).

### 2.3 Human resources management system

Human resource is one of factors that are effective on survival of organizations and always are considered by authorities and managements of organizations. Skilled and educated human resource has an undeniable role in process of evolving traditional society to industrial society in a way that human resource has been considered as the most important and main factor of developing societies and organizations so that by increasing complexity of today's society certainly missions of organizations will become more sensitive and important in order to meet expectations of societies. A thing which has been changed to a certainty among technicians is the basic role of human as main operator of organizations. Humans vitalize spiritless body of organizations and practically make realization of purposes possible. Administrative system is referred to collection of governmental and public organizations and institutions which provide public services and goods and human resource system is considered as the first basis of administrative system which include 4 main subsystems (Mirsepasi, 2010: 20)

**Supply and adjustment system of human resources:** human resources should be supplied and adjusted in strategic planning framework in large and medium organizations and naturally purposes and strategies of planning human resources are affected by major mission, purposes and strategies of organization such as other subsets of organization.

Therefore when a human resource plan is considered strategic that not only its purposes and strategies to be situated in line with strategic movements of organization but also way of decisions about estimating and supplying human resources from a hand by recognizing opportunities and treats of work market and from another hand determining strengths and weaknesses and pivotal capabilities of available human resources of organization and at the same time benefits of organization, personnel and society to be considered. An important point which exists in predicting required human resources and method of supplying them is making flexibility and dynamiting human resources supply and adjustment system and in this regard emphasis from a hand is on making people multi-skilled and from another is on proportionality of types of work and organization with type of employees' personalities (Mirsepasi, 2010: 169).

**Human resources improvement system:** human resources need preparation and education in accordance with changes in out of organizational and within organizational environments especially strategic changes of organization. Strategic selection of training programs plays pivotal role in aligning purposes of organization and human resources management and this alignment can be supplied by educating and strengthening insight, knowledge and professional skills of managers and personnel and make organizations to have learner features. Human resources are basic assets of organizations and sources of each type of evolution and innovation in organizations. Human is a changeable creature and with numerous potential evolutions and abilities, these abilities should be evaluated and become from potentiality to actuality by favorable educations. An important point about educating managers and training personnel of organizations is that trainings plans should not be only in order to strengthen professional skills but also its culture making role especially in developing countries are important as much as that or maybe more than that (Mirsepasi, 2010: 235).

**Human resources maintenance system:** no chapter is observed with topic of maintenance or similar to that in textbooks of human resources management, especially books which have been written in 1990s with strategic attitude and has been reflected with topic of "motivation and reward" (book of Landi and Kuling, 1997), or "participation of personnel in success of organization and

connection of reward to strategies of human resources" (Walker, 1992) or "security and health and helper programs of personnel" (Casio, 1989) and such as them in the books. Maintaining personnel of organizations and especially maintaining managers have aspects more than communicating human with receiving rights and benefits or supplying health and security in work environment. Meanwhile it should be not imagined that personnel's expectations from their organizations are equal in everywhere and in each work space and easily these expectations can be recognized. Imagination of each cultural space from quality of work life is an especial imagination that manages should try to identify that. When affairs related to maintaining and keeping personnel in an organization are spoken, it is necessary to be considered various and complex aspects that create individual, group and organizational needs and individual and group differences in interpretation of high quality work and humans to be studied with all their existence aspects in relation with work and social life. View to human as a system or a part of a work system should not create this imagination that human can be studied as a mechanical system; but identifying intangible aspects of human makes its maintenance difficult (Mirsepasi, 2010: 305).

**Human resources usage system:** strategic view to dominion of human resources which has formed theoretical structure of human resources system emphasizes particularly on interaction between system's components with each other and interaction of system with its external environment. Therefore quad subsets of human

resources management system should be balancer of interactions of each other in order to realize purposes and strategies of organization. If there is any insufficiently or limitation that makes other subsets of human resources management system (supply and adjustment system, improvement system and maintenance system) disable to conduct their duties effectively, human resources usage system should try to compensate that. Effective using human resources is responsibility of all managers and administrators of organizations but in terms of planning and executing, managers can be divided to two major fields named strategic field and operational field. Strategic managers provide policies and major purposes of organizations about way of attracting, maintaining and using and suggest required guides about within the organizational and interorganizational replacements and such that and operational managers mainly make strategic plans to action stage (Mirsepasi, 2010: 355).

**2.4 Human resources system organizational health**

**Human resources system organizational health**

generally has been used from combination of general indexes of administrative health and corruption of Leiden and Kolingel (2000) with human resources system indexes that include 4 subsystems with criteria of each one, this model has been expressed in Table 1 and is tested by researcher-made questionnaire (70 questions).

Table 1. Administrative health aspects of human resource system (Alagheband, 1999: 240, Mirsepasi: 2010, 10-250)

Variable	Dimensions	Indexes
		1. The alignment of strategies adsorbed
	Administrative health	And recruiting human resources with path of aim of entire organization
	Sub-system suppliers and	2. improvement and development of efficiency of personnel With proportionality of job and employment and basic training
	Amendment of human resources	
		3. The correct leadership and observing ethics in human resource adjustment
Variable		4. identification or recognition programs absorbed performance
Dependent,		The alignment of development strategies And the development of human resources with path of aim of entire organization
Health		
Administrative		
System		2. improvement and development of efficiency of personnel
References	Administrative health	
human	Sub-system development and	3. The interaction of personnel in determining training needs
		4. identification or recognition of personnel performance to determine training needs
	human recourse development	
		5. The development of ethics and piety and the spirit of aversion corruption
1- Alignment of compensating service of human resources with		Administrative health of maintenance subsystem and compensating service of human resources

<p>purpose way of whole organization</p> <ol style="list-style-type: none"> <li>2- Strengthening employees' morale and commitment with rights and wage and compensating proportional and various services</li> <li>3- Classifying jobs in order to correct use of resources and improving personnel's efficiencies</li> <li>4- Respecting to ethics in evaluating operation</li> <li>5- Cognizing and recognizing operations of compensating services of employees programs</li> <li>6- Cognizing or recognizing operation of development and improvement programs</li> </ol>	
<ol style="list-style-type: none"> <li>1- Alignment of usage strategies and work relations of human resources with purpose way of whole organization</li> <li>2- Respecting to culture of institute and commitment and expertise and morale and ethics and relations of human resources in dividing managers and</li> <li>3- Very high participation by personnel by informing about mission to them and existence of belief to their abilities</li> <li>4- Existence of communications with high enthusiasm in organization</li> <li>5- Strengthening loyalty and commitment of personnel by supporting them in society</li> <li>6- Effective leadership</li> <li>7- Correct usage of resources and new technology</li> <li>8- Attainment of personnel to their rights in purpose way and specified laws</li> <li>9- Strengthening credit and reputation of organization with regular and high activity of personnel</li> <li>10- Cognizing and recognizing operation of usage programs and work relations of personnel</li> </ol>	<p>Administrative health of usage subsystem and work relations of human resources</p>

## 2.5 history of the research

Both inner and foreign researches related to variables of the research have been studied in order to evaluate history of the research and it has been tried to express subject, purpose and final result of the research in short.

### 2.5.1 Inner researches

Shiva Zare (2012) in MA thesis of Sistan and Baluchestan University with topic of "evaluating relationship of organizational justice with organizational health and personnel's job burnout of Education Department of Zahedan" found that results of correlation test between aspects of organizational justice and aspects of organizational health show positive and significant relation and only there has been not a significant relationship in aspect of distributional justice with institutional unification with ( $r=0.122$ ). Results of correlation test between organizational justice and job burnout have shown negative and significant relation except in aspect of distributional justice with individual operation ( $r=-0.047$ ).

Also among aspects of organizational justice, three aspects of procedural justice, interpersonal justice and informational justice have the most roles in predicating organizational health and only distributional justice has role in predicting job burnout and eventually there was no difference between personnel in terms of demographic features about organizational justice, organizational health and also job burnout. Khadijeh Sheykhi (2013) in MA thesis of Tehran Payam Noor University with topic of "evaluating relationship of administrative health with organizational justice and job satisfaction and civil behavior in Education Department of East Azerbaijan Province" showed that there is strong correlation ( $r=0.657$ ) between administrative health and organizational justice.

Correlation between organizational justice and civil behavior had maximum correlation coefficient (78.6) and had minimum

correlation coefficient (0.106) between organizational justice and job satisfaction also results of multivariable regression indicated existence of maximum effect coefficient related to variable of organizational justice ( $a=0.251$ ) and coefficient of variable of civil behavior ( $a=0.217$ ) was confirmed but coefficient of variable of job satisfaction was not confirmed due to higher being than 0.5 of its significance level. Whole regression was confirmed due to lower being than 0.05 of sig of test.

### 2.5.2 Foreign researches

Olovaynio (2004) has conducted a research about effect of organizational justice on personnel's health; this research is longitudinal type and has lasted for two years. 2969 people of Finnish personnel were evaluated in this research. Results of this research showed that executing justice in organization has a significant relationship with personnel's health and reducing absence of job due to disease. Another finding of this research is that making healthy organizational space and increasing organizational justice can lead to more organizational health and reducing delay and absence.

Hui and Wulfolk (1990) have studied relationships between aspects of teacher's efficiency (individual and group) with aspects of atmosphere of healthy school (institutional cohesion, manager's influence, observance, organizing, supporting by resources, morale, and scientific emphasis) in a research under topic of evaluating relationship between teachers' efficiencies and organizational health of school. Results of the research have shown that atmosphere of a health school with strong emphasis in scientific aspects and existence of influential manager has a very strong relationship with individual and group efficiencies of teachers.

### 3. Development of hypotheses and conceptual model

#### 3.1 Main hypothesis

There is a significant positive relationship between organizational justice and administrative health of human resources subsystems in the education of Zahedan city. (H1)

#### 3.2 Sub-hypotheses

1. There is a significant positive relationship between distributive justice and administrative health of supply and adjustment of human resources subsystems in the education of Zahedan city. (H1a)

2. There is a significant positive relationship between distributive justice and administrative health of Improvement of human resources subsystems in the education of Zahedan city. (H1b)

3. There is a significant positive relationship between distributive justice and administrative health of application of human resources subsystems in the education of Zahedan city. (H1c)

4. There is a significant positive relationship between distributive justice and administrative health of maintenance of human resources subsystems in the education of Zahedan city. (H1d)

5. There is a significant positive relationship between procedural justice and administrative health of supply and adjustment of human resources subsystems in the education of Zahedan city. (H1e)

6. There is a significant positive relationship between procedural justice and administrative health of Improvement of human resources subsystems in the education of Zahedan city. (H1f)

7. There is a significant positive relationship between procedural justice and administrative health of application of human resources subsystems in the education of Zahedan city. (H1g)

8. There is a significant positive relationship between procedural justice and administrative health of maintenance of human resources subsystems in the education of Zahedan city. (H1h)

9. There is a significant positive relationship between interactional justice and administrative health of supply and adjustment of human resources subsystems in the education of Zahedan city. (H1i)

10. There is a significant positive relationship between interactional justice and administrative health of improvement of human resources subsystems in the education of Zahedan city. (H1j)

11. There is a significant positive relationship between interactional justice and administrative health of application of human resources subsystems in the education of Zahedan city. (H1k)

12. There is a significant positive relationship between interactional justice and administrative health of maintenance of human resources subsystems in the education of Zahedan city. (H1l)

13. There is significant difference in amount of relationship between organizational justice and administrative health of human resources subsystems in terms of administrative and educational personnel. (H1m)

14. There is significant difference in amount of relationship between organizational justice and administrative health of human resources subsystems in terms of demographic variables (age, education, and gender and work experience). (H1n).

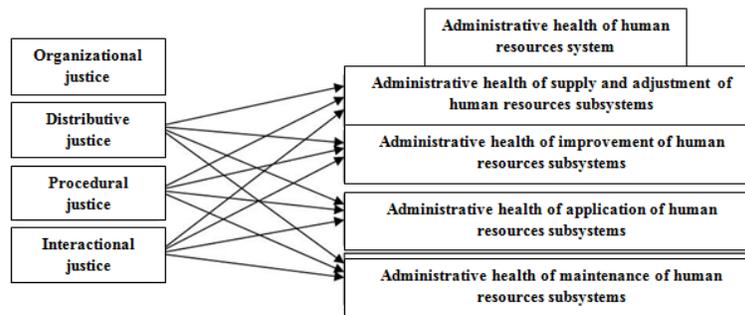


Figure 1) conceptual and theoretical model of the research

#### 4. Methodology

The present research due to this reason that develops usable knowledge about quality of relationship among variables is practical in terms of purpose and descriptive in terms of method of collecting data. Method of conducting research is as survey because describes statuses of variables and also relationships among them. SPSS software has been used in order to analyze data which was conducted as sampling. Variables of the research are: distributional justice, procedural justice, interactional justice, administrative health of subsystem of supplying human resources, administrative health of subsystem of improving human resources, administrative health of subsystem of maintaining human resources, administrative health of subsystem of human resources usage.

##### 4.1 Tool of collecting data

Using questionnaire is one of common methods in collecting information in survey researches. According to this issue that way of measuring variables of the research is specified the best method of collecting data in this research was considered questionnaire. Questionnaire of this research includes 90 items with 5-Likert spectrum which has spectrum of I completely agree to I completely disagree. Used items in this research can be divided to 7 parts of distributional justice with 5 items, procedural justice with 6 items, interactional justice with 9 items, administrative health of subsystem of supplying human resources with 11 items, administrative health of subsystem of improving human resources with 11 items, administrative health of subsystem of maintaining human resources with 20 items and administrative health of subsystem of human resources usage, with 28 items, items of part of organizational justice of the questionnaire is taken from researches of (Niehoff & Moorman, 1993). Items of part of administrative health of subsystem of human resources are as researcher-made and have been adapted from researches of (law of health of administrative system and cope with corruption, Hamzehli, 2012), (organizational in higher education, Leiden and Kolingel quoted by Alagheband, 1999), (questionnaire of

organizational health of school, Saatchi; Mahmud. Kamkari; Kambiz. Askarian; Mahnaz. Psychological tests, Virayesh publish 2010.), (strategic planning human resources, Dr. Naser Mirsepasi, 2010).

##### 4.2 Population and sample of the research

The statistical population of this research includes all administrative and training personnel of Education Department of Zahedan city in total number of 3438 people that will be in separation of administrative personnel 109 people and training personnel 3329 people.

The sample volume was formed as random stratified, in this way that schools of (group a) and the department (group b) were assumed as stratum and in ratio of number of each stratum and by using Morgan table 346 people of schools' teachers and 86 people of the department's personnel were selected as the statistical sample in order to execute the questionnaire. In this research among 500 questionnaire that were distributed (400 questionnaires among schools and 100 questionnaires in the department) 460 questionnaires were returned according to conducted follow-up and presence of the researcher on answering time that 432 main samples were obtained by reducing 28 uncompleted cases.

##### 4.3 Reliability and validity of the tool and normality of the statistical sample

All stages related to reliability and validity was completely passed to measure accuracy of measuring tool. To evaluate validity of the questionnaire first all questions were extracted from valid references, then probable problems of it were evaluated by conducting pretest. After that the measuring tool was given to some experts for more evaluation and its reliability was confirmed. Reliability of the measuring tool was evaluated by using Cronbach's alpha coefficient which is the most common inner adaptability test. Table 2 shows value of this coefficient for components of the research. Cronbach's alpha higher than 0.7 is considered as the acceptable number in reliability of the tool.

Table 2. Results of determining reliability of the research tool

Cronbach's alpha of administrative health	questions of administrative health of system	Number of sample	Cronbach's alpha of organizational justice	Questions of organizational justice	Number of samples
0.984	70	30	0.946	20	30

First skewness and kurtosis of each variable were evaluated to test normality of variables of the statistical sample that were between normal range of (-2 and 2). Second all values of sig higher than 0.05 were obtained through especial menu of evaluating normality of SPSS and by using chi-square test so distribution of the statistical population is normal according to Central Limit Theorem.

## 5. Analyzing data

### 5.1 Evaluating demographic features of answerers

From all answerers to questionnaires in terms of gender 210 people were male and 222 people were female, in terms of education 63 people had diploma degree and were under diploma, 111 people had associate degree, 170 people had Master degree and higher, in terms of age 100 people were between 20 and 25 years old, 128 people were between 25 and 35 years old, 121 people were 35 and 45 years old and 83 people were between 45 and 55 years old, in terms of service experience 89 people had 0 and 5 years, 139 people had between 50 and 10 years, 114 people had 10 and 15 years and 90 people had 15 and 30 years.

### 5.2 Evaluating hypotheses of the research

According to normality of the distribution, in order to explain and interpret variables of the research, Pearson's correlation coefficient test is used in order to determine relationship between two variables and is indicated with symbol of r. If the obtained value to be positive means that changes in both variables occur in the same direction and if r to be negative indicates this point that two variables move in contrast direction of each other and if the obtained value of correlation coefficient to be zero means that there is no relationship between two variables (Kalantari, 2010, 108).

Also we use independent t test to test hypothesis 13 and use variance analysis test in order to test hypothesis 14. When we want to compare averages of two populations (or samples) with each other and evaluate significance of difference between them, t or z test is used but when research want to evaluate difference of averages of more than two populations (or samples) variance analysis method or test of F is used (Kalantari, 2010, 125). Results of testing hypotheses are provided based table 3.

Table 3. Results of statistical tests of hypotheses

Row	Hypothesis	Hypothesis testing	Results
1	The main hypothesis: examine the relationship between organizational justice and administrative health of human resources system Through the Pearson test	The correlation coefficient = 0.658 Intensity of the relationship = 0.321	Hypothesis is confirmed. with compliance and increase in organizational justice with its various aspects an ideal platform to achieve the organization to objectives and aligning and is provided healthy and effective enjoyment of human resources and thus administrative health of human resources puts upward.
2	Hypothesis 1: examine the relationship between distributive justice and administrative health of supply and adjustment of human resources subsystems Through the Pearson test	The correlation coefficient = 0.615 Intensity of the relationship = -0.124	Hypothesis is confirmed. But with increasing distributive justice and payments among personnel the unity and cohesion between them is increased. That this consistency in negative mode will be increased in the little corruption in the category of order and nepotism of hires Therefore, due to the positivity of category of distributive justice reducing it is not rational. But with the increase should be done enough building a culture order to justify personnel to benefit of them of capacity internal cohesion on the right path and avoid of corruption.
3	Hypothesis 2: examine the relationship between distributive justice and administrative health of Improvement of human resources subsystems Through the Pearson test	The correlation coefficient = 0.115 Intensity of the relationship = 0.376	Hypothesis is confirmed. With increasing distributive justice and payments among personnel interest of personnel to learning and specialized, doctrinal and educational training to play an effective role in the organization becomes more and more. Therefore, can be increased employee motivation to learn more and more and aversion of tendency to academic degree and tendency to certificate with increase in justice in payments.

4	Hypothesis 3: examines the relationship between distributive justice and administrative health of maintenance of human resources subsystems Through the Pearson test	The correlation coefficient = 0.344  Intensity of the relationship = -0.146	Hypothesis is confirmed. But with increasing distributive justice and payments among personnel. A type of hand-picked is created in organization that all personnel supply in terms of material and there will be not a protest for the rights and benefits. this will be created too little corruption in the field of financial and non-financial compensation and appointments of jobs that we need more making culture.
5	Hypothesis 4: examine the relationship between distributive justice and administrative health of application of human resources subsystems Through the Pearson test	The correlation coefficient = 0.148  Intensity of the relationship = -0.17	The hypothesis is confirmed but by increasing distributional justice and payment among personnel a kind of misconception has been created in the organization that because all personnel are financially supplied, there will be no protestation in the field of nonfinancial needs such as delegation of authority and giving management posts to inappropriate people and this issue will make a little corruption about way of managing organization that we need more culture making.
6	Hypothesis 5: examine the procedural justice and administrative health of supply and adjustment of human resources subsystems Through the Pearson test	The correlation coefficient = 0.629  Intensity of the relationship = 0.323	The hypothesis is confirmed, by increasing justice in wok processes and way of conducting affairs, personnel's hopes to existence of justice in in the organizations become more and they will try to respect this matter about attracting and employing acquaintances of themselves.
7	Hypothesis 6: examine relationship between procedural justice and administrative health of Improvement of human resources subsystems  Through the Pearson test	The correlation coefficient = 0.614  Intensity of the relationship = 0.324	The hypothesis is confirmed, by increasing justice in wok processes and way of conducting affairs, processes are conducted correctly and as the result personnel's enthusiasm and interest in real increase of knowledge and learning in order to more domination to processes and work routines are increased.
8	Hypothesis 7: examine the relationship between procedural justice and administrative health of application of human resources subsystems Through the Pearson test	The correlation coefficient = 0.594  Intensity of the relationship = -0.126	The hypothesis is confirmed, but by increasing justice and accuracy and correctness in work routines and way of conducting affairs, personnel will have more expectation about receiving more salary and benefits for more work in their own imagination, this issue causes a little corruption about distribution of salary, benefits and overtime that those who have more expectation will receive more benefits. So we need more culture making and more training for personnel that working in correct way means spending energy in correct way and preventing wastes.
9	Hypothesis 8: examine the relationship between procedural justice and administrative health of application of human resources subsystems  Through the Pearson test	The correlation coefficient = 0.775  Intensity of the relationship= 0.314	The hypothesis is confirmed, by increasing justice and work routines and way of conducting affairs, the process is conducted correctly and as the result organization is managed more correctly and for this purpose we need using more competent personnel for management posts and effective leadership of organization.
10	Hypothesis 9: examine the relationship between procedural justice and administrative health of application of human resources subsystems Through the Pearson test	The correlation coefficient = 0.245  Intensity of the relationship = 0.356	The hypothesis is confirmed, by increase in interactions among personnel and mangers, managers find more belonging feeling to organization and find more sensitivity to entrance and exit of personnel to organization.

11	Hypothesis 10: examine the relationship between procedural justice and administrative health of application of human resources subsystems  Through the Pearson test	The correlation coefficient = 0.966  Intensity of the relationship = - 0.102	The hypothesis is confirmed, but by increasing justice in interactions among personnel and managers, a kind of intimate feeling and not feeling need to learn new methods is created and mastery feeling and not need to discussions which are presented in training seminar are created in personnel and so they are formal evidences and documents. In this field we need to justify personnel seriously by managers in order to active participation in seminars.
12	Hypothesis 11: examine the relationship between procedural justice and administrative health of application of human resources subsystems  Through the Pearson test	The correlation coefficient = 0.719  Intensity of the relationship = 0.317	The hypothesis is confirmed, by increasing justice interactions among personnel and managers due to this issue that there is justice in face to face mode in organization we will in safety from corruption about distributing salaries and benefits.
13	Hypothesis 12: examine the relationship between procedural justice and administrative health of application of human resources subsystems  Through the Pearson test	The correlation coefficient = 0.897  Intensity of the relationship = -0.106	The hypothesis is confirmed, but by increasing justice in interactions among managers and personnel, a type of traditional and vulgar feeling is created in personnel to organization so that they feel there is no need to new management methods and accurate identification of worthy people for management posts that as the result we will cause to a little corruption about human resources management in organization that we need more familiarity with science of human resources management
14	Hypothesis 14: Effect of variable Group (administrative and teaching personnel) on the main variables of the research.  Through independent t-test	(Sig) significant level organizational justice= .367 (Sig) significant level administrative health of human resources system= 0.380	Viewpoints of two groups of school and the department to variables of the research are approximately equal because all personnel are in fact training and have attracted as teacher and also due to interactions among personnel, for this reason they have close viewpoints.
15	Hypothesis 14: Effect of sex variable on the main variables of the research.  Through independent t-test	The significance level (sig) Justice=0.7 The significance level (sig) administrative health of human resources system = 0.03	Viewpoints of both groups of male and female to variable of organizational justice of the research are approximately equal but viewpoints of two groups of male and female to administrative health of human resources system of the research are not equal.
16	Hypothesis 14: Effect of education variable on the main variables of the research.  Through analysis of variance test (ANOVA)	Significance level (F) Organizational justice =1.279 The significance level (F) administrative health of human resources system = 0.621	Viewpoint of 4 educational groups to variables of the research are approximately equal. Due to high interactions of personnel with each other both in school environment and department environment and exchanging ideas, viewpoints gradually become close to each other and has affected some factors such as education and....
17	Hypothesis 14: Effect of Age variable on the main variables of the research.  Through analysis of variance test (ANOVA)	Significance level (F) Organizational justice = 0.673 Significant level (F) administrative health of human resources system = 1.219	Viewpoint of 4 age groups to variables of the research are approximately equal. Due to high interactions of personnel with each other both in school environment and department environment and exchanging ideas, viewpoints gradually become close to each other and has affected some factors such as age and....
18	Hypothesis 14: Effect of work experience variable on the main variables of the research.  Through analysis of variance test (ANOVA)	Significant level (F) Organizational justice = 2.377 Significant level (F) administrative health of human resources system =1.563	Viewpoints of 4 groups of service years to variables of the research are approximately equal. Due to high interactions of personnel with each other both in school environment and department environment and exchanging ideas, viewpoints gradually become close to each other and has affected some factors such as service years and....

## 6) Discussion, conclusion and suggestions

This research is trying to evaluate effect of aspects of organizational justice on administrative health of human resources system of Education Organization of Zahedan city. In this regard as it is observed justice and justice-centered in this organization can have administrative health of human resources system. Most of direct relations in testing hypotheses of the research are related to procedural justice and then interactional and eventually distributional; this issue indicates that personnel consider more importance for way of correct executing procedures and processes and correct dividing duties and responsibilities and also interactions full of respect and reverence to personnel. And it is acceptable according to new management theories and hierarchy of Maslow's needs that psychological and spiritual needs are on top of the pyramid. Also the highest intensity of relationship is related to relationship between distributional justice and administrative health of subsystem of improving human resources that shows more effect of distributional justice on making personnel interested in efficient learning. Also due to this issue that most of the personnel have equal resource and are attracted as teacher and also because of high interactions of personnel with each other both in school and work environment and exchanging ideas, viewpoints become more close to each other gradually and has affected most of demographic factors of the research.

And the last point is that according to complexity of human and following that complexity of human resources systems, certainly this completely variable system is not under effect of one factor and is controlled by several inner and outer factors. Therefore due to limited effect of organizational justice on administrative health of human resources system in this research it is expected that some other important factors will exist with factor of organizational justice such as organizational culture, leadership style and evolutionary leadership in organization, organizational trust, type of intelligence, organizational creativity, job satisfaction and etc. that will need more researches. Research suggestions will include following cases: evaluating effective factors on creating organizational justice and strengthening that in organizations, evaluating standards of measuring justice in organizations, comparative comparison of justice-centered status in private and governmental organizations, executing research plans similar to the present research in other organizations, according to importance of issue of human resources and lack of enough researches in this field especially in Iran it is suggested to conduct wider researches and evaluations in this field in governmental organizations of the country which are main custodians of problems of personnel and human resources. More accurate and separate evaluation relation of each one of subsystems of human resources as a research with other variables related to organization according to severe lack of certain human resources researches according to limited effect of organizational justice on creating administrative health of human resources system it is expected some other important factors will exist with factor of organizational justice such as organizational culture, leadership style and evolutionary leadership in organization, organizational trust, types of intelligence, organizational creativity, job satisfaction and etc. so evaluating and studying in order to identify these creating factors of administrative health of human resources will be very useful, executing many researches in line with previous case in order to evaluate each one of identified factors on administrative health of system. Human resources, comparative evaluating effect of different factors on administrative health of human resources system

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## EVALUATING THE EFFECT OF CHANGES OF ECONOMIC FLUCTUATIONS (BOOM, STAGNATION AND STAGFLATION) ON THE PROFITABILITY OF BANKS LISTED IN THE TEHRAN STOCK EXCHANGE

<sup>a</sup>FERESHTE VALI GHARROUDI, <sup>b</sup>MEHDI DEHGHAN NEISTANAKY, <sup>c</sup>REZA NEMATI KOSHTELI

<sup>a</sup>*Department of management and accounting, Islamshahr branch, Islamic Azad University, Islamshahr, Iran*

<sup>b</sup>*Department of management and accounting, Islamshahr branch, Islamic Azad University, Islamshahr, Iran*

<sup>c</sup>*Department of management and accounting, Islamshahr branch, Islamic Azad University, Islamshahr, Iran*

Email: <sup>a</sup>fereshte.v.gharroudi@gmail.com,

<sup>b</sup>mehdidehghan11@gmail.com, <sup>c</sup>reza.n.koshteli2@gmail.com

**Abstract:** In this study using linear model of the effect of independent variables on the dependent variable were examined. Bank profitability as a dependent variable and conditions of stagflation, GDP growth, changes in stock index securities, liquidity growth as independent variables and variables bank size and number of employees are also considered as control ones. The effects of economic fluctuations on the profitability of banks listed in the Tehran stock exchange based on the annual financial statements over the 2010 to 2014 of 12 banks. Overall, the evidence from the research were noted as between stagflation, GDP and changes Stock Exchange index has a significant relationship with profitability. However, there is no significant relationship between growth, liquidity and profitability.

**Keywords:** economic fluctuations, the profitability of banks, internal factors, stagflation

### 1 Introduction

Today the bank as an important element in financial markets play an important role in the economy. With the development of financial markets, banking and financial institutions have taken a wider dimension and no doubt that economic development is not possible without considering the role of banking and money markets. Banks play an important role in the economy for two reasons; Banks as financial intermediaries provide financial resources as well as on deposits indication that the debtors control is an important part of the national currency. Financial performance review and monitor the financial condition of banks for depositors, the owners, potential investors, managers, and regulators deemed important.

Today, any change in the country's banking system could greatly affect its business activity (Kavyani et al., 2012).

Banks are one of the main activators monetary market and community economic as an intermediary, attract additional financial resources in the form of deposits and they will pay for facilities to customers of financial resources and considering that all activities are conducted within the economy. Therefore, any change in the economic situation could also have an impact on them (Kallantari, 2011). According to the above functions, the banking system, it is obvious that the banking industry plays an important role in the economic growth of communities. The bank is a business and goal of any business is profit, therefore, the banks with the activities mentioned above are always thinking about more profitable and financial resources would lead towards lucrative targets. So given the profitability of the main objectives of the bank, therefore, changes in macroeconomic variables banking businesses directly and indirectly will affect. Therefore, this paper examines the effects of economic fluctuations on our profitability analysis bank.

### 2 History Research

Ricardas Mileris (2015) in their study examined the impact of the recession on the profitability of banks' loan portfolio data. Results of the analysis, higher sensitivity of NPLs to the economic downturn in Europe Union member states with incomplete macro-economic indicators confirmed. Moreover, the

results show that banks in these countries by assessing the credit risk of loan applicants should consider possible changes in the macro economy, because they have a significant impact on the profitability of banks' loan portfolio in future periods. Mohammad Fizan Malik et al., (2014) in a study of interest rates and their impact on the profitability of banks treaty in the Pakistan public and private sectors mentioned.

In this study, to better understand the effect of sample is divided into two categories.

1) Public sector banks, including four national banks

2) Private sector banks including six private sector banks for study (Does not include Islamic banks in the sample). Bank lending rates as a proxy for interest rates is considered, while return on assets (ROA) and return on equity (ROE) as the profit of the bank is taken into account. Regression model was used to study the effects of interest rates on profitability.

The results show that the interest rate impact on both return on assets (ROA) and return on equity (ROE) in private banks compared to public sector banks are responsible. Sallum and Hayek (2012) in his article the effect of macroeconomic variables such as GDP and inflation on the interest income of banks in Lebanon have investigated. The findings suggest that a significant positive relationship between GDP and interest income of the banks. We can say there is a positive relationship between economic growth and bank earnings. On the other hand, inflation has two effects on the Bank's income and expenses.

High inflation reduces the real interest rate is the issue of demand for bank facilities and consequently increase income. On the other hand, inflation increase banking costs (through the impact on operational costs). Tan and Flores (2012) studied the effects of inflation and the profitability of Chinese banks has this study is based on panel data conducted between 2003-2009.

The results of their research indicate that there is a positive relationship between profitability of Chinese banks with cost efficiency, the development of the banking sector, development of capital markets and inflation. Dietrich and Wanzenried (2011) factors affecting the profitability of commercial banks in Switzerland examined the period 1999 to 2006. The results indicate that the relationship between bank profitability and growth in GDP is positive. Renato Giovannini (2010) in a study of the relationship between investment banking services, ownership structure, financial advisers and plans for monitoring of public companies examined. The results of this study indicate that it is still impossible to be noted

Between willingness to Investment Banking and performance, there is a correlation. Seelanatha (2010), the impact of market structure on the efficiency and profitability of banks Sri Lankan examined. The results show that the performance of banks in relation to the Sri Lankan market concentration or market power does not have any of these banks. However, when the impact of the banking market structure and focus on the efficiency of measures, the existence of this relationship is confirmed. Molyneux and Thornton (1992), the determinants of bank performance between 1986 and 1989 in 18 European countries examined. The procedure was repeated Burke banks with the highest concentration of large size. Javanbakhht Miandehi (2015), in their study to identify and prioritize the factors affecting the profitability of banks using fuzzy techniques has been investigated. The data for this study was collected using a questionnaire phase and using all measures have been proposed AHP technique is classified. The results show that the main criteria for bank profitability by revenue, resource management, credit management, promote exchange activities, development of

electronic banking, customer relationship management, human capital development and sale of non-banking services. Naderi Bani and Enayati (2015) in their research examine the impact of macroeconomic variables on the profitability of banks in Iran during their five-year financial 2009-2013.

Econometric panel data is the method used in this research. The results show that the effects of macroeconomic variables of inflation, housing price index and the rate of exchange intensity dependent variable are negative and significant profit margins. Majidi Khamene and Ansari (2014) in their research examined the relationship between macroeconomic variables and the profitability of banks (Maskan Bank), in the period 2002-2011. The results showed that there is no direct relationship between liquidity and profitability of banks positively correlated with GDP, there was no significant relationship between inflation and the profitability of banks. Delkhahi (2014), in his study on the effects of economic conditions (boom, stagnation and stagflation) on the activity and profitability of the Bank Pasargad, using the linear model showed the impact of inflation and liquidity over profitability for the delay and reverse Pasargad Bank and effectiveness of GDP on bank profitability variable is declared for the delay and place. Pirayesh and Bahrami (2014), in his research studying the factors affecting the profitability of commercial banks listed on the Tehran Stock Exchange, during the period 2005 to 2012 concluded that the independent variables capital adequacy, asset quality, there is a significant relationship between the dependent variable profitability and cash management banks. Results from regression coefficient indicates the first step is the most important variable in determining the profitability of commercial banks, asset quality variable with 43 percent, the variance of the dependent variable; the next step is capital adequacy rate of 30% after 0.22 of variances in profitability and liquidity management of commercial banks explained. Walli John (2013), to evaluate the effect of macroeconomic variables on the profitability of the banking and public and private banks paid during the period 2005 to 2010. The results show that the bank special factors include the bank's capital, liquidity risk, combining private banking activities and bank ownership have had positive and significant effects on profitability, while the size of banks had a significantly negative impact on profitability.

As well as macroeconomic variables such as GDP, inflation rate have a significant positive relationship with profitability. Turki and Karimzadeh (2013) examined the effect of electronic banking on the profitability of Iran's Bank Mellat. The results showed that the bank's market concentration is greater positive effect on the profitability of the bank, this increase may be due to the emergence of a monopoly position in the market for concentrating said. Despite the problems and limitations, as well as the development of electronic banking. Bank Mellat has brought increased profitability. Noori et al., (2011) examined the effects of concentration in the banking industry and other factors have on the profitability of public banks, the results showed that there was significant inverse relationship between concentration and profitability of banks. The other factors efficiency, capital, national income levels and interest rates and banks' profitability has a direct relationship with the state while the size of the bank has an inverse relationship with profitability.

### 3 Methodology and Hypothesis

The population of this study includes all banks are listed the financial performance between 2010 to 2014 registered. The aim of the study is to identify and predict a phenomenon, in a statistical population. To obtain an understanding of the phenomenon, an example of that society, and the analysis is performed on selected samples and then extrapolated the results to the entire population. Due to the limited number of banks listed in the Tehran Stock Exchange and as pointed out in its population the research sample consisted of those banks that are listed in the Tehran Stock Exchange has the following measures:

1. Information is available for the periods 2010 to 2014.
2. The financial period of the banks, are identical. (At the end of March)
3. Selected Banks are not in the classification of the OTC market transactions.

Thus, among the banks listed in the Tehran Stock Exchange a total of 12 banks selected as statistical sample

According to 5-year period sample size is 60. According to the theoretical foundations of the research hypotheses are stated as follows:

First hypothesis: There is a significant relationship between the conditions of stagflation and profitability of banks.

The second hypothesis: There is a significant relationship between GDP growth and profitability of banks.

The third hypothesis: there is a significant relationship between Stock Exchange index changes and profitability of banks.

Fourth hypothesis: There is a significant relationship between growth, liquidity and profitability of banks.

Hypothesis test

The model presented in this study is as follows:

Model (1)

$$ROA_{i,t} = \beta_0 + \beta_1 STAGFL_{i,t} + \beta_2 GDPGR_{i,t} + \beta_3 TEDPCH_{i,t} + \beta_4 LIQUGR_{i,t} + \beta_5 BASIZE_{i,t} + \beta_6 PERNUM_{i,t} + \varepsilon_{i,t} \quad (1)$$

In this study combined data is used to test the hypotheses. In the combined data to choose between fixed-effects panel data test Chow test (test F) and to choose between tests of fixed effects and random effects test Hausman test was used. Top model variables are as follows:

Bank profitability (ROA): In this study, the rate of return on assets used for bank profitability, which is achieved by dividing net income, by total assets.

Terms of stagflation (STAGFL): In this study the conditions of stagflation is a dummy variable therefore, if the rate of inflation in the middle of this year the inflation rate over the course of further research. In addition, the rate of GDP growth rate of GDP this year is less over the study period and the value of this variable is assigned a value of zero.

GDP growth (GDPGR): GDP growth is calculated as follows.

Model (2)

$$NOE = \frac{GDP_t - GDP_{t-1}}{GDP_{t-1}} \quad (2)$$

Changes Stock Exchange index (TEDPCH): to compute the index of the Stock Exchange of cash return index of Tehran Stock Exchange (TEDPIX) is used, which is calculated as follows.

Model (3)

$$TEDPCH = \frac{TEDPCX_t - TEDPCX_{t-1}}{TEDPCX_{t-1}} \quad (3)$$

Liquidity growth (LIQUGR): through the growth of liquidity announced by the Central Bank can be obtained.

Bank size (BASIZE): Bank size is achieved through natural logarithm of the total assets of banks.

Model (5)

Model (4)

PREMIUM=LN number of employees (6)

BASIZE=LN Total bank assets (5)

#### 4 Findings

Number of employees (PREMIUM): the number of employees is achieved through natural logarithm of the number of employees.

In Table (1) Results Descriptive, statistics are presented.

Table 1: Descriptive statistics

Variable name	Symbol	Number of Views	Average	Middle	Maximum	Minimum	Standard deviation
Bank profitability	ROA	60	0.0182	0.0131	0.0844	-0.0013	0.0153
Terms of stagflation	STAGFL	60	0.2000	0.0000	1.0000	0.0000	0.4034
GDP growth	GDPGR	60	0.6800	1.3000	6.5000	-6.8000	4.7293
Stock exchange index changes	TEDPCH	60	61.787	57.362	107.71	11.208	33.407
Liquidity growth	LIQUGR	60	25.620	25.100	30.000	20.100	3.6166
Database size	BASIZE	60	18.814	18.978	21.039	15.045	1.2758
The natural logarithm of the number of employees	PERNUM	60	8.5063	8.0659	10.418	7.2556	0.9961

Table 1 shows the descriptive statistics, which some concepts of descriptive statistics of variables, including mean, median, minimum observations, maximum, standard deviation has been observed.

obtained can be said that the profitability of the banks surveyed the relatively high volatility. Average liquidity growth is 25.62% with a standard deviation (3.62%) is of relatively low volatility.

The results show that the banks examined, the average profitability is around 1.82% and the standard deviation (1.53%)

Table 2 also shows the correlation coefficient is variables.

Table 2: Correlation test result

Variable	ROA	STAGFL	GDPGR	TEDPCH	LIQUGR	BASIZE	PERNUM
ROA	1.000						
Possibility	---						
STAGFL	-0.1995	1.000					
Possibility	0.0000	---					
GDPGR	0.0907	-0.2751	1.000				
Possibility	0.0408	0.0334	---				
TEDPCH	-0.0898	0.1931	-0.0679	1.000			
Possibility	0.0428	0.0000	0.6064	---			
LIQUGR	0.053	0.0553	-0.1796	0.1129	1.000		
Possibility	0.2508	0.2126	0.0000	0.0000	---		
BASIZE	0.1077	0.2345	-0.2014	0.0775	0.2016	1.000	
Possibility	0.0150	0.0713	0.1227	0.5563	0.1225	---	
PERNUM	-0.3845	0.0235	-0.0162	0.0223	0.0234	0.1175	1.000
Possibility	0.0024	0.8584	0.9024	0.8657	0.8592	0.0079	---

Results table 2 shows the 95% confidence level, the situation of stagflation, changes Stock Exchange and the natural logarithm of the number of employees and a significant inverse correlation with the profitability of banks while GDP growth and the size of banks with bank profitability are correlated.

It is necessary to estimate models estimation method (combination or panel) are specified.

F-Limmer test has been used for this purpose. The observation that is likely to test more than 5% or in other words the test statistic is less than the statistic table, the procedure used and to

test the observation that the probability is less than 5%, Panel method used to estimate the model. His painting technique using two models of "random effects" and "fixed effects" can be done. Hausman test used to determine which model is used. The

observations that test the probability is less than 5% of the fixed effects model and the observation that is likely to test more than 5% of the random effects model was used to estimate the model.

Table 3: F-Limmer test results Panel method

Research Model	Type of statistic	statistic Value	Degrees of freedom	Possibility	Result
	F statistic	3.7076	(11.42)	0.0010	Panel method
	(Chi-square)	40.7137	11	0.0000	

Table 4: The results of Hausman

Research Model	Type of statistic	statistic Value	Degrees of freedom	Possibility	Result
	(Chi-square)	107.0083	6	0.0000	Fixed effects model

As the Tables (3) and (4) show, the probability of F-Limmer research model is less than 5% the panel method is used to estimate the model; and given that the probability is less than 5

percent Hausman test research model therefore, the fixed effects model was used to estimate it. Table 5 shows the test results are hypothesis.

Table 5: Results of the research model

Variable	Symbol	Estimated coefficient	Standard error	T-statistic	Possibility
Constant (intercept)	C	0.252892	0.081214	3.120115	0.0033
Terms of stagflation	STAGFL	-0.009586	0.003600	-2.662753	0.0080
GDP growth	GDPGR	0.033101	0.008970	3.690344	0.0003
Stock exchange index changes	TEDPCH	-0.014001	0.006972	-2.008074	0.0452
Liquidity growth	LIQUGR	0.002338	0.001272	1.839041	0.0730
Bank size	BASIZE	0.030600	0.010734	2.850601	0.0046
The natural logarithm of the number of employees	PERNUM	-0.019735	0.008867	-2.225656	0.0315
The coefficient of determination			0.602		
The coefficient of determination adjusted			0.562		
Durbin - Watson			1.821		
F statistic			22.6629		
Probability (statistics F)			0.0000		

First hypothesis: There is a significant relationship between the conditions of stagflation and profitability of banks. To test this hypothesis, the results of the model are presented in Table (5) have been used.

The probability (P) F equal to 0.0000, and because the amount is less than 0.05, the null hypothesis is rejected at the 95% confidence level, the model is significant. Watson Durbin statistic is 1.821. This value indicates the absence of autocorrelation of errors. The results show that the coefficient of determination adjusted, approximately 56.2% by independent variables and the dependent variable controlled models, explained. The results show that except for variable liquidity growth, the remaining variables in the model are significant at the 95% confidence level. The results of the control variables show that positive correlation between the size of the bank and bank profitability significantly. There is a negative and significant relationship between the natural logarithm of the number of employees and the profitability of banks. In general, the results show that the coefficient of the variable conditions of stagflation, that -0.009586 which reflects the negative impact of inflation on the Bank's profitability is recession due to the variable conditions of stagflation coefficient t-statistic is significant at 95% confidence level. In other words, we can say the conditions of stagflation and there is significant negative correlation bank profitability.

According to the above can be verified at 95% considered the first hypothesis this reflects there is a significant negative correlation between the conditions of stagflation and profitability of banks.

The second hypothesis: there is a significant relationship between GDP growth and profitability of banks.

To test these hypotheses, the results of the model are presented in Table (5) interest is taken. In general, the results show that variable rate of GDP growth, was 0.033101 that the positive effects of GDP growth on the profitability of banks, which varies according to GDP growth coefficient t-statistic is significant at 95% confidence level, in other words we can say that a positive relationship between GDP growth and profitability of banks significantly.

According to the above 95% in the second sub-hypothesis can be considered. This reflects the positive significant relationship between GDP growth and profitability of banks.

The third hypothesis: there is a significant relationship between changes of index Stock Exchange and profitability of banks.

To test these hypotheses, the results of the model are presented in Table (5) have been used. In general, the results show that the variable coefficient Stock Exchange index changes, -0.014001 represent negative impact of bank profitability on the stock

exchange index. According to the statistic t with variable coefficient Stock Exchange index change is significant at 95% confidence level, in other words we can say that the Stock Exchange index changes and there is a significant negative correlation bank profitability. According to the above 95% in the third sub-hypothesis can be considered confirmed. This reflects there is a negative and significant relationship between changes in stock index securities and bank profitability.

Fourth hypothesis: There is a significant relationship between growth, liquidity and profitability of banks.

To test these hypotheses, the results of the model are presented in Table (5) have been used. In general, the results show that the rate of growth of liquidity variable, was 0.002338

That the positive effects of liquidity growth on bank profitability however, due to the variable coefficient t-statistic liquidity growth at 95% is not significant in the model, in other words, we can say that the growth of liquidity and there is no significant relationship between bank profitability. According to the above fourth sub-hypothesis cannot be confirmed at 95%. This indicates that there is no significant relationship between growth, liquidity and profitability of banks.

Due to the limited number of banks listed in the Tehran Stock Exchange and, as pointed out in its population. The research sample consisted of those banks that are listed in the Tehran Stock Exchange has the following measures:

- 1 .Information is available for the periods 2010 to 2014.
- 2 .The financial period of the banks, are identical (At the end of March)
- 3 .Selected Banks are not in the classification of the OTC market transactions.

## 5 Conclusion

The extent of research and application of its results, more economic and more comprehensive studies are needed in this area is necessary. Given that the index of goods and services, inflation and purchasing power of the domestic currency of the country measure due to the high volatility in prices and the rise in inflation in recent years, economic experts should act in managing inflation.

Due to the high rate of bank profitability in the country and comparison with global statistics, interest rates and its management as a factor in lowering inflation is suggested.

That, where the study was conducted in Iran, can be used in future studies to investigate the factors affecting the Bank's profitability in various countries or using time series model to study factors affecting the profitability of a particular bank. It can also be paid to the effects of resource allocation on the profitability of banks because the allocation of financial resources, a contributing factor to the development of a society.

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## A COMPARATIVE STUDY OF THE VARIOUS ASPECTS OF MOON BASED ON ANCIENT ASTRONOMY IN NASER KHOSRO, ANVARI AND NEZAMI'S POEMS

<sup>a</sup>BEHNAZ SHAHNAVAZI, <sup>b</sup>HABIB JADIDOLESLAMI

<sup>a</sup> Department of Persian Literature, Zahedan Branch, Islamic Azad University, Zahedan, Iran.

<sup>b</sup>Department of Persian Literature, Zahedan Branch, Islamic Azad University, Zahedan, Iran

Email: <sup>a</sup>Behnaz.Shahnavazi, <sup>b</sup>Habib.Jadidoleslami@gmail.com

**Abstract.** This paper aims to detect, analyze, and compare various aspects of moon based on ancient astronomy in Naser Khosro, Anvari and Nezami's poems. To achieve this purpose, first the word astronomy science, astrology, and its manifestation in Persian poetry has been studied in brief. Then moon, locations of the moon, and its different manifestation in the poems of these three poets have been shown, analyzed and compared. The results of this study shows that moon had been shown in the poems of all these three poets in different forms such as showing moon in its twelve towers, cancer, Taurus, and folk beliefs about moon, eclipses.

**Keywords:** Naser khosro, Anvari, Nezami, moon and poetry

### 1 Introduction

Attention to sky and celestial phenomena caused men's surprise and encouraged them to unravel the mysteries and secrets of the beauties hidden in them. The first result of human's efforts for obtaining knowledge about star's movements was the fact that men believed in the possibility of life on the moon, this fact caused the creation of many religious and mythical beliefs, so that many of those beliefs has a special place in customs and religious beliefs of today's human despite the passage of thousands of years. The vast expanse of sky, incredible beauty of stars, the glow of moon, sunset and sunrise gradually increased the sense of interest and curiosity in mankind so that its manifestation can be seen in many artistic and literary works of the world, so that many of the poets and writers all over the world reflects the beauties of sky and astronomy in their works. Astronomy is one of the most ancient human sciences. In the past, people considered the situation of stars effective in the condition of their lives and also their fate. "Ancient people predicted climate change, wind, earthquakes, lunar eclipse, eclipse, rain and...by their observations and their personal experiences through centuries, doing this they have formed a set of rules which were transferred generation to generation to reach us today. In any case, these ideas are common knowledge and folklore culture; therefore they have a very important situation in anthropology because their roots are in wisdom, talent, and the accuracy of the folklore. (Shakurizade, 1993; 170). In the past, people lived in a context of folk and unscientific beliefs. Ignorance about the nature and cause of objects and phenomenon led to astronomical thoughts or beliefs. By astrological beliefs, we mean those opinions and beliefs that ancient people have had about stars, celestial bodies, and their effects on their lives and on the elements of nature: such as the belief that sunlight cause the creation of gems like garnet and amethyst.

Many works of poets and writers which are written to reflect all aspects of human life, show astronomy and all its beauties well. So that by looking them, we are able to solve many secrets of human issues especially ancient people. With the help of literature and literary works, we can come over time and place; we can see ancient people and live with them. In Persian literary works, astronomy is reflected so much. We can name the anonymous nature, and incredibility of sky, and also ancient's belief regarding the effect of sky and stars on human fate as the reasons of poet's attention to them. Persian literature as a mirror for Iran's art and culture, have had reflected many issues regarding sky in itself from the very beginning days of its creation. So it is necessary to study this issue in different Persian literary works. And the way of their reflection, their similarities and differences in the works of different poets should be compared.

Looking at the past Persian literature, it is obvious that all poets and writers have used heavenly and celestial phenomena in their works variously. Astronomy had a very important value and it was very common among wealthy families to appoint time for their works and also to show lucky or malevolent days, so that astronomy was regarded as one of the very essential information part of each spiritual and religious figure. On the other hand, there was a folk knowledge among people against each modern knowledge, in old days, sometimes the illusionary and superstitious aspect of some sciences were supposed more important than their rational and scientific aspects and some sciences were entirely based on superstition (Mahjoob,2003:137)

Astronomy had a very important value in pre-Islamic Iran, what is left in ancient books, clay tablets, and ceramics and especially in Ilami tablets about the name of months, 300-400 words, symbols and characteristics of stars shows that astronomy knowledge goes back to long before Babylon (Ghazani, 1990:546-547).

After the arrival of Islam, not only this interest was not finished, but also its various aspects grew with time passage, and it caused the creation of different terms associated with cosmic events. "this terms penetrated into poets works gradually, and created an important connection between poetical illusions and cultural ideas, some of which is gathered in *Astronomical Terms Culture Book* " (Ghafelebashi and Hashemi, 2010:121).

Religious astronomy was one shape of prediction which was based on the principle that stars and planets affect terrestrial objects and individuals' fates. Today this kind of astronomy is not regarded as a science. But in past it was a kind of science to know the characteristics, situation of people and showed effects of stars and planets on them, it found a place among people over time, and some beliefs were shaped about some parts of this science. Ancient people could not find justifiable answers to their questions and what happened to them, so they tried to justify some of those events by relating them to sky and astronomy. Anyway, religious astronomy itself became a base for astronomy knowledge and religious astronomy was terminated over time by great scholars such as Abureyhan Al-Biruni who did not believed in this superstitions.

Astronomy and issues related to it had a very important effect on Iran's culture; its biggest manifestation can be seen in its presence in the works of great poets and writers such as Naser Khosro, Hafiz, Anvari, Sa'di, Senaiee, Nezami and others. Poets sometimes mentioned astronomical terms in their speech as metaphor or as simile. And also they sometimes used these terms to exclude some superstitious thoughts among people. Fifth and sixth centuries were one of the most productive periods in Persian literature. Khorasan, Aran, Azarbayegan and Isfahan were regarded as the most important centers of literature and poetry in this period. In this period, Islamic culture has penetrated in all aspects of people life. Poets had always focused on the arrangement of words relying on their knowledge in scientific and literary areas and they had tried to achieve fresh and innovative themes.

Astronomy was one of the common sciences of fifth and sixth centuries.

The appearance of scholars such as al-Biruni, Omar-Khayam in west and Ibn-saed and Abu-Ishagh Zarghani in east of Islamic countries is a proof to this claim. The creation of Talili-Zeyj, Malekshahi Zeyj, and Jalali calendar are among the important activities of this period (Mahyar, 1990; 571). Learning astronomy was one of the essential things for scientists.

In this paper, we are comparing the manifestation of moon relying on ancient astronomy in Anvari, Nezami and Naser Khosro's poetry. The review of astronomy in the poems of these three poets can show their view to astronomy in Khorasani and Araghi style; it is done to show the maximum frequency of the appearance of moon will happen in which poets' works. This paper is going to answer this

question: According to ancient astronomy, how and for what purposes moon was reflected in poems of Naser Khosro, Anvari and Nezami?

### 1.1 Astronomy

Astronomy is the plural of "Najm" word meaning stars. Literally astronomy means the appearance and rising of stars and growing up of the plants. In terms of ancient knowledge, astronomy was regarded as one sector of mathematics and also a branch of arithmetic science between Muslims in which degrees, minutes, and seconds were discussed by multiplication, division, subtraction, and roots. Its subject matter was about understanding the situation of celestial bodies in relation to each other and also in relation to territorial creatures, their number, size and their movements. In fact, astronomy is a science in which the celestial bodies appearances, the rules of their true and apparent movements, sizes, distances and their natural properties is discussed.

### 1.2 Ecliptic

Ecliptic is the path of the annual apparent movement of sun in relation to earth in the celestial sphere. It is an imaginary circle in sky that apparently (in the eyes of the earth's inhabitants) believe sun to move around this circle in a year. This circle actually detects the circle in which earth goes around the sun which is literally named "Savabet planetarium". It seems that sun in its apparent annual movement goes through twelve constellations of stars and celestial sphere known as ecliptic.

These twelve constellations of star include: transportation (lamb), Taurus (bull), Gemini (twins), Cancer (crab), Leo (lion), Virgo (cluster), Scorpius (the scorpion), Aquarius (cathment), Pisces (fish).

### 1.3 Fifth and sixth centuries' poem

Persian's fourth and fifth centuries' poetry is named Khorasani style. Because the first poems related to pro-Islam belongs to an area in Transoxiana and Khorasan. Of course Persian poetry at that time had a very much broader geographical range compared with the present Khorasan of today. It used to spread from north to Oxus River, from south to Sistan and from east to China.

The simplicity of language, the ability of poets, their power in combining words, and creation of innovative themes, use of few number of Arabic word, the huge number of poems, the freshness of poetry thoughts and themes, metrical transformation, prosperous lives of most poets, signing of praise poems, describing nature and...are among the characteristics of Khorasani style poetry.

Sixth century poetry: the poetry of sixth century to the end of ninth century is known as Araghi style. This style includes Mughul, Ilkhanan, and Timurid periods. The reason for its naming is the fact that after the brutal attack of Mughul, the cultural centers moved from Khorasan to Iraq. Perhaps the most important style in all periods of Persian poetry is Iraqi style. Because the greatest Iranian poets belong to this period, and the most valued literary works of Iran belong to 7 to 9 centuries.

The entrance of numerous words and combinations from local dialects into Farsi, deeper and more extensive influence of Islamic culture, increase in Arabic words and combinations, the influence of Sufi thoughts and terms in poetry, pessimism of the poets to the situation of that time due to the ravages of this period, the spread of the poetry out of courts and its spread between wider groups of people, the expression of political and social situation, criticism of the mess, the expression of personal feelings and...are among the characteristics of this period's poetry.

## 2 Literature review

Comparative literature which is sometimes called "universal literature" is an essentially French science. In plain language it consists of the comparative review of works which have roots in different cultural areas. In fact, comparative literature is a branch of literary criticism which discusses the literary relation of nations, different languages, and the relation between nations' literature. It is an important branch of literature which discusses the similarities and differences between literature, language and nationality of different nations.

Comparative literature can compare the literature of two or more different countries, it can also compare the literature of one area with the literature of all other areas of earth, or even it can compare the literature of different periods of one single country among the poets and writers of that country. Therefore, in this article, the poems of Naser Khosro, the poet of Khorasani style, Anvari, the poet of Iraqi-Khorasani style and Nezami, the poet of Iraqi style are compared to show different reflections of moon in their works.

Our hypothesis is based on the principle that moon is manifested in the poems of the three poets; Anvari, Nezami, Naser Khosro, in various forms such as eclipse, moon's locations, brilliance of the moon and etc. We have discussed this hypothesis by analyzing and comparing the lyrics of these three figures.

So far numerous articles and books have been published regarding each of these three poets (Anvari, Nezami, and Naser Khosro). Also some researches have been done directly or indirectly about astronomy in the poems of these poets. But in the books, articles, theses, and other comparative studies which have been done so far, any works have been done focusing on moon in the works of these three poets. Among the works done about these poets, we can mention the below cases:

The book "Astronomy in the Works of Naser Khosro" written by Zahra Hesariani. The writer has discussed Naser Khosro's beliefs, the poet of fifth century (391-481), regarding the effects of stars and astronomy in universe. The article "astronomical beliefs in Nezami's poetry" written by Fatemeh Elahi. This article has discussed folk beliefs in three works of Nezami; "Khosro and Shirin", "Lili and Majnoon", and "Haft Peykar". The Thematic and Structural comparative thesis done on Anvari and Khaghani's poetry" written by Roghaye Hedayati Sani and many more studies which we cannot name in the article.

## 3 Results

### 3.1 Moon

Humans used to benefit moon's regular rotation as calendar, particularly in agriculture. Passengers and sailors also used the presence and moon's light for orientation and navigation. Moon also was presented in myths of many nations. In some cultures, people worshiped moon as a god.

In Persian literature, moon has had a very prominent place. It was always a symbol for beauty and brilliance. Using moon to describe and to show similarity is so common among Persian poets, that you can find few poets who had not used moon for these purposes.

Moon is also named "Maj, Mas, and Mahir" in Farsi. In Iranian's older language, it was seen as "Mang" too. In Persian literature, the words glowing, nocturnal, unwashed face, and merciful are attributes of moon, and the terms lights, flame, silver circle, circle glass, cup, tablets, bergamot, apple, sandals, cotton balls, and claw are among moon's evocations.

Moon is the nearest planet to earth. The beautiful image which humans have in their mind regarding moon has always had a great influence in their imagination and their feelings. "From astronomical aspect, moon is a planet which is dependent to earth, the time circle needed for its rotation is 33/27 days, and therefore

always one side of the moon is toward earth. Moon has had a prominent role in Iran's ancient myths, in Zoroastrianism, it was regarded as animals guard and the twelfth day of each solar month was named moon" (Mashhur, 2009; 75).

In moon's definition, the following words are mentioned in Dehkhoda's dictionary. In many parts of Iran, especially in popular opinion, moon and sun are man and woman who love each other. The spots on moon are the effect of sun's hand which has had put his muddy hand on moon's face as a result of envy. Ancient people believed that if a crazy person look at moon, his craziness will increase.

In the past, people also had some other beliefs about moon. "They believed, at ecliptic times, moon or sun were captivated by Jinns, they started beating drums and shooting guns to release moon or sun." (Mirnia, 1990, 241). They believed moon's light causes the growing of plants and the color of flowers. "the common belief was that moon will cause the color of flowers, so poets called moon Mashate (meaning cosmetologist) or Sabagh, meaning the painter of flowers" (Mosafa, 2002, 696).

### 3.2 Moon's crescent manifestation in Nezami, Anvari and Naser Khosro's poetry

Ancient astronomers regarded moon as the nearest planet to earth. By the appearance of Batlimuce and the publication of "Mojasti", this belief became a real fact and moon was known as the first star of the multiple spheres (seven, eight, and nine) and this opinion was accepted by all astronomers. Accordingly, they had expressed various opinions about moon, they believed moon's home is in Cancer, its appearance is in Taurus, and its demise is in Capricorn. They also believed that travelling is not permissible when moon is in Scorpion and when it is in Gemini, intending to do something was not permissible too.

We should note that sun is shining itself, but it is not the case about moon. We see moon, because of sun's shining at it. We see full moon, if that side of moon which is toward us be exposed to sunlight. If sunlight shines to only some part of the moon, we saw moon as a thin crescent, half-moon or like a round circle depending on the amount of shined light. This optical phenomenon is called different phases of the moon.

When moon is placed completely opposite to sunlight, it fades in intense radiation of sun and we cannot see it. This situation is called New Moon. Anyway, all these astronomical changes lead us to see moon in different shapes; from a thin crescent in first days of the month to a full-moon in the fourteenth night of the month. This beautiful manifestation of moon in the sky has caused many beautiful poems in Persian literature especially in the works of Nezami, Anvari and Naser Khosro. In some of the below cases, poets have likened their beloved one to moon in respect of their beauty.

The image of the laugh of the crescent has been portrayed in the sky (Nezami, 1995: 538). "Lili and Majnoon".

Your face is as beautiful as sun and moon, your lips are as sweet as sugar and honey (Anvari, Sonnet, 11) - the book of poem.

Your beauty is like the fourteenth- night moon, your beauty is like Azeri idol (Anvari, sonnet No.11) the book of poems.

Anvari and Nezami have superiority over Naser Khosro in describing moon and also in the creation of beautiful images and metaphors by using moon. Their similes are very beautiful and in some cases the similes are their own innovations. One of the beautiful descriptions of moon in Persian literature relates to the appearance of the crescent of moon for Eid al-Fitr declaration. The appearance of Shawwal crescent was necessary to declare Eid. Poets have used this event and have created beautiful images in this respect. Such as the poem by Anvari:

He said" say God and worship God

I said " oh the crescent of Ramadan" (Anvari, Ode No.134)-the book of poems.

### 3.3 Moon's location

Since third century AD, many astronomers relied on a set of stars which were near to moon and the planetary alignment to determine moon's location in sky. They wanted to determine instances of moon's orbit in sky. They believed "at any time in day or night, there are fourteen locations above the horizon and also fourteen locations below it, and when one of the locations rise in west, the fifteen locations falls in east. And it is clear that from the rise of one location to fall of the other location, it will last 13 days" (Alfonso Nalyno: 1970, 143).

Past astronomers categorized these 28 locations in four groups of spring, summer, autumn, and winter. They have chosen these names for the locations: Aldebaran, Soraya, Jibhe, Spica, Boothes, Rosemary, Saad Zabh, Saad al Seud. Nezami has named most of moons location in his poem:

Quake has happened in the sphere, from the shape of towers and moon's location in sky. The image of the crescent of the moon is portrayed in the heaven. The Cow constellation is like sea's cow, it is like a gem in Soraya. June has seen on a bed made of two bodies. Crab is like forest's cubits whose nail is removed. Jibhe has made sky as shining as one hundred lights by its beauty. The hearth of Lion constellation is shining as a result of the presence Lion, like the fire of flares which are shining. Like generous people, it has spread its light in the sky. Like a generous person who put bread in the bowl of orphans. Mizan has spread its light like a wise man that spread his knowledge by his tongue. Bootes is like a hunter who is riding two hunting dogs. Scorpion has superiority over the bows. Baldeh has had all the blessings under its presence. Joday has cut his head like a goat, because it has heard the myth of the goat. Zabeh has closed its mouth, because of its fear and has taken the leash of Sa'ad. (Nezami, 1934:174-176). -"Lili and Majnoon"

Anvari has also mentioned some of these locations:

My voice in praising you will arrive to Nasre, in your praise, I will sing poem after poem. (Anvari, Ode No.181)- The book of poems

It has turned from a fly to an eagle, it has gone up to spica from a very low position (Anvari, sonnets, 466) - the book of poems

Poets have paid more attention to some moon's locations in comparison with other locations; therefore we will mention a few of them below.

### 3.4 Bootes

Bootes is the fifth location of northern constellation which is also called "Sayah", "Beghar", "Gavcheran", "Hares al-Sema", and "Hares al-Shemal". Booths represents a hunter, holding the leash of two dogs in one of his hands while riding a lion.

Bootes is like a hunter riding a lion while having the leash of two hunting dogs in its hands (Nezami, 1934: 174-176) Lili and Majnoon

Booths constellation is not mentioned in Anvari and Naser Khosro's poetry, but it is mentioned in Nezami's poems several times.

Debor means entering from the back. This star is named Aldebaran, because it comes out from the back of Soraya. It is also named "Tabe al-Najm", "Tali al-Najm", and "Hadi al-Najm". Because of the fact that it is placed in the center of Taurus constellation, it is also called "Eyn al-Taurus", meaning the eyes of Taurus constellation.

Aldebaran has the fourth location among Moon's locations. Astronomers believe that it is malevolent. In the past, astronomers regarded the rain which came in this location, to be malevolent and assumed it to be an introduction for drought.

The intention of Aldebaran is not toward nullity, if you are a friend, know the reality of Aldebaran (Naser Khosro, 1976:544) - the book of poems

Aldebaran constellation is used just in Anvari and Naser Khosro's poetry, Nezami has not used it in his poems at all.

The tenth location of moon is called Jibhe which has had much manifestation in Persian Poetry. Jibhe constellation is manifested in Nezami's poetry, Anvari and Naser Khosro had not mentioned it in their poems.

Jibhe has lightened the sky by its beauty as if there is one hundred lights in the sky (Nezami, 1934: 174-176).

Astronomers have named the red shining star which they have observed out of Bootes constellation as "Rameh Spica". Of course "Azal Spica is placed in the fourteen location of moon and it is not regarded as one of Scorpion's constellation stars.

Brightness and high position of these two Spicas are among the most important motivations which have caused poets to mention them in their poems so much.

All three poets have mentioned these two Spicas in their poetry but Anvari has used it more than the others.

Astronomers have named the three stars which are placed in front of Scorpion constellation as Eklil; they are placed in a line. This constellation is the seventeenth location of the moon. In Persian poetry, when we say the seventeenth location, we mean "Eklil", we should not interfere it with "Northern Eklil" or "Southern Eklil".

Eklil is the heart of the crown, it has superiority over scorpion (Nezami, 1934: 175\_ - "Lili and Majnoon

Last night the sun of sky, Eklil was seen. I hope both of them to be lucky (Anvari, Ode No. 122).

"Eklil Constellation" is manifested in Anvari and Nezami's poetry. Naser Khosro had not used it in his poems.

"Baldeh is the twenty-first location of moon. This location is the place between "Na'ayem" and "Sa'ad Zabe" in which there vacuum space. It is among those locations of moon that poets have paid great attention to it and have mentioned it more than other locations of moon. But in the poetry of the three desired poets, we can see its manifestation just in Nezami's poems.

The placement of moon in the shadow of earth is named lunar eclipse. The darkness of half of the moon or even its whole darkness has lead poets to create beautiful images by their innovative minds. Therefore there are many beautiful verses in this regard in our poetry.

Lunar eclipse is another phenomenon which is just reflected in Anvari's poetry. Naser Khosro and Nezami had not mentioned it in their poems.

Sun and moon will get together at the end of each lunar month in one single tower, one single minute and one single degree, this phenomenon is called community. In this situation moon will be placed under the radiations of sun, and it causes it to be invisible. The time period in which moon is located under sun's radiation is called community. And Arabs have named it "Serar"(meaning hidden), because it is hidden beneath the sun's radiation. Also it is named "Mehagh". Some astronomers regard this phenomenon to be malevolent.

The brilliance of your face has superiority over Mehagh, your beauty will remove the intoxication of the drunken (Anvari, Ode No.78) the book of poem

The ancient people believed that moonlight will cause cotton to be spoiled. This issue is reflected in Anvari and Nezami's poetry, but Naser Khosro had not mentioned it in his poems.

Moonlight will spoil cotton, but her beautiful moon-like face has not any defect (Nezami) Khosro and Shirin)

How much is remained to your appearance, my heart is like a cotton which is placed under moonlight (it is spoiling) (Anvari, Ode No.9). The book of poems

In the past, people believed that looking at moon will cause the disturbed people to get more disturbed. This issue has a very beautiful reflection in Persian Poetry. This phenomenon is not mentioned in the poetry of Anvari and Naser Khosro, but Nezami has reflected it in his poems.

He cannot turn toward me, because the crazy people are not permitted to look at the moon. (Nezami, ode No.13).

\*the verse mentions the belief that disturbed people cannot look at the moon, doing so, they will get more disturbed (Nezami, 1934: 105) – "Lili and Majnoon"

Like a crazy person who has seen the moon, sometimes he stands up and sometimes sits down.

\*again it has mentioned the idea that crazy people are not permitted to look at the moon.

It's better not to make me happy by seeing you, because the crazy one cannot look at the New Moon (Nezami, 1934: 77).

Ancient people believed that moonlight is a guide for passengers and for those who have lost their ways. Muslims also had a strong believe in this regard, there is also one verse of the "Holy Koran" which mentions this phenomenon "God is the one who has placed stars for you to find your ways in the darkness of land and see, we surely guided those who know" "Verse 97 of Sura Anam). Anvari has a poem which reflects this issue beautifully.

Moon came out as a guide and Venus came out as a beloved, it will guide you in all the way (Anvari, Ode No.189) - the book of poem

Astronomers have divided the twelve towers of "Zodiac" into two parts; they have specified six towers to moon and the other six to sun. They have specified the towers beginning from the start of Leo Capricorn to the end of Goat to sun, and from the beginning of Aquarius to the end of Cancer to moon. Accordingly, they have regarded Leo Capricorn as sun's location; they also have assumed Cancer Capricorn as moon's location. They have allocated the five remaining towers of moon and sun to other planets based on astronomical data. Nezami has reflected this idea that moon's location is in Cancer Capricorn in one of his poems.

Moon entered into its towers, as if it is coming to its castle (Nezami, 1964:383) - "Khosro and Shirin

Ancient astronomers regarded some towers as the position of dignity for some planets. They assumed these places based on astronomical information and accurate grading. Accordingly the dignity of moon is considered in Taurus tower, Nezami has mentioned this issue in one of his poems.

Whenever Venus is placed in Taurus, and Jupiter in Sagittarius, they are placed in their heavenly location, (it's time of their dignity) (Nezami, 1964: 99).

\*it has mentioned the dignity of moon in Taurus.

In past, people assumed the entrance of moon into Scorpion to be malevolent. They especially believed that travelling is not permissible in this situation. This belief is reflected in Persian Poetry. In the poems of Anvari, Nezami and Naser Khosro, there is not any direct mention to this issue, but Anvari has reflected the malevolently of Scorpion in their poems.

Your revenge is as malevolent as Scorpion's

Your kindness is as good as the luckiness of Scales (Anvari, Ode, No145) - the book of his poems

\*it has mentioned the ominous nature of Scorpion

Nayerin or sun and moon together

The brilliance and indefinable beauty of moon and sun has long been in the focus of people especially astronomers and poets have created beautiful images and meanings regarding these two. This issue has been reflected beautifully in the poetry of all three poets; Anvari, Nezami, and Naser Khosro. But it is seen in the poetry of Anvari more than the two others. Anvari has written a whole ode in this regard, he has brought moon and sun together in all its verses to praise it.

Sadness and happiness of the beloved, fear and hope of the beloved

Moon and sun, the creator of night and day (Nezami, 1996:125).

\*this verse has mentioned to moon and nights together (Nayerin) as the creator of nights and days.

Her face is more beautiful than the sun

She has given of her beauty to moon and sun (Nezami, 1995:151)

\*here again the verse has mentioned moon and sun together (Nayerin) and says his beloved is more beautiful than moon and sun.

As moon has the sun shining on his face, it will turn to a luminous crescent (Naser Khosro, Ode No.136) – the book of his poems

\*here again moon and sun have come together (Nayerin).

Since you have been born, no one has seen any other mother giving birth to moon and sun together (Anvari, Sonnet No. 19)- the book of his poems.

\*in this verse, the poet has mentioned Nayerin again.

Moon and sun with all their beauties, are the servant of your beautiful face. (Anvari, Sonnet No.171). The book of his poems

\*here again, the poet has mentioned moon and sun together

#### 4 Conclusion

Naser Khosro, Anvari and Nezami, all lived in fifth and sixth century, a period which can be assumed as golden ages of poetry and literature in Iran. Many great Persian poets appeared in this period. In that time, innovation and the creation of beautiful poems have got such a great importance among poets that they tried to get superiority over each other. Accordingly little by little the entrance of scientific information into poems became a sign of superiority among poets. Astronomy was among those sciences that poets tried to enter it into their poetry. One of the most beautiful astronomical images in poetry is the image of moon in the poems of Anvari, Nezami and Naser Khosro. In a comparative study of different reflections of moon in the poems of Nezami, Anvari and Naser Khosro, the following results were obtained.

- Based on ancient astronomy, moon is reflected in the poems of Anvari, Nezami and Naser Khosro variously including the brightness of moon, its crescent, and also various image creations of moon such as moon's location, moon in its twelve towers, eclipse, and the presence of moon and sun together.
- Among the different images of moon, there are some ancient and to some extent superstitious beliefs in the poetry such as the beliefs about the effect of moon on cotton, the belief that says the crazy people got more crazy by looking at moon, and also the belief about its being guide for passengers.
- Referring to moon and sun together (Nayerin) is reflected in the poetry of Anvari more than Nezami or Naser Khosro's, Anvari has a whole poem in this respect.

- The frequency of the use of moon in creation of beautiful images is seen in the poetry of Anvari and Nezami much more than Naser Khosro's.
- In the creation of images by using moon, the only towers which are reflected are Cancer and Taurus.
- The images in Anvari's poetry are much more in praise of the beloved in comparison with Nezami and Naser Khosro.
- The reference to most locations of moon is seen just in Anvari and Nezami's poetry and Naser Khosro has mentioned them less.
- The frequency of the use of moon and its different locations especially Eklil is seen in the poetry of Anvari much more than Nezami and Naser Khosro's.

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## IRAN'S CRIMINAL LEGISLATIVE POLICY ON MEDICAL CRIMES

<sup>a</sup>RAHIM ALI, <sup>b</sup>MAHMOUD ALIZADEH

<sup>a</sup>*Department of Law, International Branch, Islamic Azad University, Bandar Anzali, Iran*

<sup>b</sup>*Department of Judicial Sciences, Religious school, Qom, Iran*

Email: <sup>a</sup>*Rahim.ali1362@gmail.com,*

<sup>b</sup>*masoud.alizadeh.kl@gmail.com*

**Abstract.** The current paper aimed to investigate the dominant approach in Iran's legislative policy on medical crimes taking into account various criminal, judicial and executive aspects. Some of the findings and the results show that firstly, legislative criminal policy approach in dealing with medical crimes are punishment based lacking corrective and preventive attitudes. Secondly, legislative criminal policy of Iran disclaims responsibility of the physician based on consent, the presumption of innocence, legality and respect for the scientific and technical work. Third, the basis for criminal liability of physicians in Iran law is not transparent and criminal attitude of the legislator is allowed to develop the scope of inclusion of medical liability of the physician while there are the conflicts on legal articles.

**Keywords:** criminal legislative policy, medical liability, medical crimes.

### 1 Introduction

Studies show that the criminal policy of Iran lacks systematic and goal-oriented strategy with the ability to prevent crimes, general and specific deterrence and reformation and rehabilitation of offenders not only in dealing with medical crimes but in different aspects of dealing with delinquency. And the manifestations of different conflicts and problems in criminal legislative, judicial and executive policies in turn faced criminal policy of Iran with ambiguity and inefficiency, and not only there is no corrective or preventive or precautionary statements sensible and reliable indicative of having new knowledgeable approaches to criminology but weakness in controlling crime has established a reasonable suspicion that Iran cannot follow a scientific and systematic criminal policy on dealing with medical crimes or other crimes (NajafiTavana and Milaki, 2011). The current study attempts to study the various aspects of criminal policy of criminal offenses in the intervention areas of medicine, and its efforts aimed at analyzing the concept and principles of criminal liability of physicians in Iran criminal policy and in this context provide answers to the research questions.

### 2 Criminal policy and its variants

Today, the criminal policy is an independent field of study contrary to the scholars of the past that took it as a branch of criminology or applicable criminal law. A proper criminal policy, contrary to criminal law, not merely relies on penal policy; instead, the resolving of social problems; removing the causes of delinquency; elimination of legal discrimination and injustice; and cure and rehabilitation of criminals are of its characteristics. Favorable criminal policy is a general concept that uses many sciences in order to achieve goals and on the other hand is associated with many organizations through which implements their measures; Therefore, criminal policy is classified from different angles, one is division into three legislative, judicial and participation parts (Katoziyan, 1995).

#### 2.1 Criminal legislative policy

It involves a series of measures to combat delinquency manifested in law with assured enforcement of legal sanction.

#### 2.2 Criminal justice policy

In its narrow sense means the criminal policy which is reflected in the decisions and performance of the courts of justice. After legislator implemented criminal policies in the form of laws and regulations, these laws and regulatory messages are perceived, interpreted and accepted differently.

### 2.3 Criminal policy of partnership

It means to determine the effective participation of civil society actors in the criminal policy. In other words, it means taking into account the effects of creation of strengthening tools and levers other than the police or the judiciary in order to give more credit to criminal policy, which is prepared and enacted by the executive and legislative branches.

The word responsibility means guaranteed, liability, obligation, reprimanded, being obliged to do something, committed to come and man of duties and any actions man undertakes and is responsible for (Jafarilnagrodi, 2013). In jurisprudence the responsibility and liability are used interchangeably and the responsible person is liable (Dehkhoda, 1995).

Medical liability is a fundamental issue in medical law arises in the physician -patient relationship. In fact, the physician -patient relationship is as a contract that is signed between them and by virtue of this contract, the physician as an active player in this relation gains income as to his scientific services while entitled to obligations have been called liability in legal literature. In this regard, the physicians is liable of their expertise and the size of its scientific capabilities, in accordance with the regulatory system and taking into account confidentiality and non-disclosure of this relationship takes care of patient and any " malpractice "by him, will be the realization of civil and criminal liability. In fact, when the legal relationship is established between patient and physician, the practitioner responsibility will be crystallized in the field and medical malpractice and errors arises responsibilities from this relationship as the case may be (Khalilifar, 2011). Civil liability comes when losses inflicted on individuals as a result of medical procedures .The responsibility is to compensate for the loss or damage and sentenced physicians by medical malpractice compensate for the damage personally or via insurance companies.

The medical crime is the fraudulent medical office jobs without having conditions of legal regulation and malpractice and negligence and violation of medical rules and regulations in handling tasks and legal obligations.

### 3 The basis for civil liability of physician in the IPC and Jurisprudence

Articles 319 to 321 of Islamic Penal Code enacted in are on medical responsibility and circumcision and veterinary that first we analyze and criticize them. Then we refer to the provisions of the new Islamic Penal Code. Article 319 of Islamic Penal Code on civil liability and the legal liability of physician stipulates: "the physician is liable if, although qualified and professional, causes loss of life, injury or property damage in treatment by them, or ordered by them, however, with the permission of the patient or their guardian." Article 319 of IPC is based on the Shi'a jurists; and they know physician liable even guilty in applying knowledge, qualified, and permitted by the patient or guardian. Evidence of liability is referred to in view of the reasons given in support of the theory (Sivsalari, 2001; MahmoodRezaee, 1993). There is another promise in jurisprudence that is the basis of acceptance of medical responsibility of the physician in case of malfunction that will be discussed later.

Article 321 of the Penal Code that refers to a veterinarians similar to Article 319 and apparently accepted the vet immediately responsibility and provides that: "a veterinarian shall be held liable, although an expert, inflicts damages on animal during its treatment, though with the permission of the owner". This Article is consistency with the Article 319 and is with the same jurisprudence roots of the Article 319 because scholars compared physician liability to that of the veterinarian. Accordingly, physician and veterinary liability in the IPC is a strict liability and is not based on fault; in other words physician and veterinary liability, on compensation for medical maltreatment, it is enough to realize the harm suffered and the

causal relationship between the loss and the agent lawsuit to prove; while circumcision responsibility under Article 320 is apparently based on the fault. This article stipulates: "the circumciser is liable if causes offense or loss due to the excess of the amount necessary cut although skilled." It seems that 'cutting more than enough' "is a fault; because the fault in the sense accepted by most lawyers and civil law and Islamic jurisprudence is compatible with "deviate the conventional behavior". But, in case of circumciser who is a professional, his act should be compared with the behavior of similar experts. It is clear that specialist circumcision does not "cut more than enough" and it is the violation of practice of medicine. Thus, specialized circumcision that exceeds normal behavior must be liable. However, Article 320 is also based on the opinion of some Shi'a jurists.

#### 4 Examples of medical crimes and their punishment

In this section, due to the limitations, we will discuss two examples including Suicide medical assistance and abortion; and then end up with the discussion with the conclusion of the discussion.

##### 4.1 medical assisted suicide

Physician-assisted suicide (Rezapour, 2011) means to end the life of patient by received physician assistance through the voluntary choice of the patient. In the other words, in this type of suicide, "the physician provides patient with suicidal tools (for suicide), knowing that he intends to use it to commit suicide." Some believe that Physician-assisted suicide is in fact, one of the types of euthanasia and consequently should be discussed under this system. Thus, some literatures have been divided euthanasia into two types of direct and indirect. This division refers to the role of who perform the deprivation of life operation, in a sense that if the physician themselves deprives the patient of life; it will be direct euthanasia and if the physician provides the patient with the suicidal tools; it will be indirect euthanasia (Zeraat, 2001).

##### 4.2 Abortion

Abortion is a difficult and complex issue of the today's society. Almost all human societies are faced with this problem given the breadth and diversity of religious beliefs and moral influence among the various classes of society. Naturally, the legal systems claiming the protection of the values and beliefs of citizens, encounter this issue more seriously and more objective. According to Iran the Ministry of Health and Medical Education records, the number of 80 thousand abortions take place annually, mostly illegal and unhealthy.

Under Article 622 of the Penal Code, "Whoever knowingly and intentionally, through beating or annoying pregnant women causes abortion, s/he would be liable to pay atonement or retribution and subject to imprisonment from one to three years."

In this context, Article 718 can be noted that provides: "If a woman aborts her fetus intentionally, quasi-intentionally or on pure error, atonement shall be paid by the perpetrator or her guardian based on the case."

#### 5 Conclusion

According to the historical development of medical liability laws passed in Iranian law, According to the Penal Code in 2013 in the absence of medical fault in science and practice, there is no liability on the physician, even if the acquittal is not gotten. In fact, the new Penal Code has accepted the fault. However, before that the physician was considered responsible for damage that was caused to patients during treatment even if negligence was not the case. It should be noted on the one hand due to the sanctity of the medical profession from the divine perspective and tradition and on the other hand the relativity of human progress in medicine, a skilled professional shall be distinguished from who treats patient by the lack of necessary expertise and in fact with fault, because it is compatible with the principles of fairness and justice and a safety issue for young physicians to stay away from the rebuke of absolute fault taking advantage of their expertise and dare generalize their skills in the field of finding solution in the treatment of disease. In this regard, the new law is a fundamental step in the realization of rights and ethics closeness because highlighted the good will as the principle that combined with the profession and associated with it. Although there are ambiguities in the context of some recent laws, they must be corrected with openness and transparency in order to move towards human and divine value.

Legal procedure must be adjusted to avoid a conflict between Article 492 and Article 496 and the adjustment means to sum up between two wills (the will of the physician and the will of nurse). Also, it is not fair to consider the nurse knowledgeable and the physician ignorant where traditionally the physician has higher medical expertise and skills, especially that meeting this is associated with certain complexities, especially in case that nurse provides physician with medical note but faces with his insistence. It was a good idea if the legislator support nurses in different ways to get rid of the confusion in a transparent manner and do not ignore physician. In fact, the legislator should take into account the sensitivity of the profession and clearly apply a consistent procedure to avoid obscurity and support for health.

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## FEASIBILITY STUDY AND ECONOMIC-SOCIAL EVALUATION OF IMPLEMENTING THE SOLUTIONS OF GREEN DESIGNING IN TEHRAN CITY

<sup>a</sup>SOMAYEH AJANK, <sup>b</sup>AFSHIN PARAM

<sup>a</sup>*Masters of architecture, Islamic Azad University, Dmavand branch, Tehran, Iran*

<sup>b</sup>*Assistant Professor, architecture from Sapienza University of Rome, Tehran, Iran*

Email: <sup>a</sup>ph\_s\_arjang@yahoo.com, <sup>b</sup>afshin.paramjh@gmail.com

**Abstract.** The purpose of this research is to study the possibility of specified development and plan for converting Tehran to a sustainable and green city as a proper model for all cities in Iran. It was specified that green designing of Tehran not only causes to promote the social life quality, create interaction spaces and meet the mental and physical needs of citizens, but also economically causes to save the costs remarkably which are spent for achieving clean air, acoustic tranquility, quality and life span of buildings and use of cheap and clean energies. For this purpose, at first the importance of the green designing issue, study of green architecture background and its roots have been explained and then the general principles have been explained and in the continuation, the solutions of green designing in Tehran city have been mentioned.

**Key words:** Green architecture, sustainable designing, sustainable development, urban green designing

### Introduction

According to the statistics related to the population fund of United Nations organization, the world population has become three times during the recent 70 years. Now, 75 million persons are being added to the world population yearly and the predictions have estimated the world population between 9.7 to 9.10 billion persons in 2050 (Dehghani Bidgoli, 2008). This statistic indicates insufficiency of existing sources in future. In an era that the energy crisis with its acceleration ends the sources existing in the world especially fossil sources quickly. For continuance of life, renewable and healthy sources like water are needed seriously (Sedaghati and Tayyeb Ghasemi, 2014). Access of developing countries to the kinds of new energy sources has significant importance for their economic development and new researches have indicated that there is a direct relation between the development level of a country and the amount of its energy consumption. With utilization of green architecture, negative effects of buildings such as pollution and destruction of environment have been reduced and at the same time, the quality of spaces is increased. Also reuses of consumptive water and substitution of clean and renewable energies instead of unrenewable and destructive energies promote the social and economic situation of environment in the earth tangibly.

In Iran country also with regard to the increase of population and following it, incremental need to the energy sources, limitation and reduction of fossil energy sources on one hand and the necessity of keeping the environment healthy and protection of it on the other hand, the necessity and importance of using of new energies (like wind, sun, water and thermal energies) become double (consumption management group of electricity distribution company of Semnan province, 2012). Green architecture is an old process, because it has existed fundamentally in many traditional civilizations and architecture such as Iran's traditional architecture. New issue is to understand and applying this important that in addition to create beauty and diversity in buildings architecture, embraces the protection of the natural sources, immunity from pollutants, protection of the Ozone layer and health of future of humanity. The necessity to apply this architecture as a duty for construction of buildings becomes more clarified in our country day to day (Dashti Shafiee, 2013).

### 1. The research background

Combination of architecture with nature and plants isn't a new idea; the idea of creating small garden on roof and cultivation on it has been applied by Iranian people on the roof of Ziggurats in

2500 years ago. Also green roofs had been constructed by Babylon's people 600 years before nativity (Razavian, 2010). Suspended gardens of Babylon in fact weren't the gardens suspended in the air, rather they were green spaces which were placed on the roofs and terraces of several buildings, but development of this phenomenon scientifically for the first time was expanded by construction of green roofs in Canada and United States in 19<sup>th</sup> century. Modernist architects like Le Corbusier, Frank Lloyds Wright and Roberto Beverly Marx whom are accounted as the main owners of green architecture idea, promoted the advantages of roof-gardens and constructed modern green roofs (English nature, 2003: 498). From successful samples of modern roof-gardens since 1930s onward, famous garden of Rockefeller in New York, modern roof-garden of Kensington in London can be mentioned (Dabaghian, 2009). Between the years of 1950-1990 in most of the countries, multi-floor buildings which were constructed with «international style» were similar with administrative buildings. Ventilation devices were substituted instead of natural ventilation. Construction of terrace was ignored and nature lodged for automobiles and car parks. Discussion and researches about green designing are very few in our country and with regard to the importance and necessity of issue, they need and depend on the doubled study, deep thinking and ambition. We hope that after writing this article, the attention of more researchers to be attracted to the therapeutic and hospital issues and it leads to study and collect a research with new approach about sustainable and green designing and new models and findings.

Zandieh and Parvardinezhad in a study entitled "sustainable development and its concepts in residential architecture of Iran" know that the most important factors which pollutes the environment in the world and especially Iran are fossil energies which are used for providing and supplying the consumptive hot water and heat of residential spaces, in the continuation, they know traditional architecture as a kind of sustainable and green architecture and according to this, they suppose that utilization of Iran's traditional architecture in residential and non-residential sections and even combination in general and vaster level like city is necessary. Keshkar Ghalati et al., (2010) in the article of "development of green roof system according to the criteria of sustainable development in Iran" introduce the green roof system and study its kinds and features and know the green system as one of the sustainable development components. Razavian and et al., (2010) in their research introduce green roofs or roof-gardens as a proper solution for reconciliation with nature and change of urban perspective and they study and analyze its defects and advantages in comparison with normal roofs. Dashti Shafiee also in an article entitled "studying the principles and place of green architecture in Iran and presentation of solutions for development of it" meantime emphasis on existence of green architecture in an old process and belonged to the ancient civilizations, understands the important and discussable issue and introduces its practical application in Iran and adds "the necessity of applying green architecture as a duty for construction of buildings becomes more clarified in our country day to day" (Dashti Shafiee, 2013).

### 2. Methodology

**Information collection method:** Since the methodology always follows the research subject, with regard to the current research subject, two main methods have been used in order to collect the information: 1-Documentary method, 2-surveying method.

**Methodology:** In this research, the applied methodology is a descriptive-analytical kind and the information collection method is a library, grounded and surveying kind. In this method, the researcher has used of his most important tool namely note-taking.

#### 2.1 The research questions

In order to do the research, at first some questions related to the studied issue were proposed so that the research to be expanded according to these questions and the intended purposes to be achieved. These questions are as follows:

- Whether green architecture has been come out in executive form in our country or it has remained in the theory tradition.
- In what regions has green architecture been used applicably?
- What are the benefits and profits of green architecture for Tehran Township?
- Is the execution of projects justifiable in green form for Tehran's constructors?

**3. Sustainable development**

**3.1 Sustainable development definition**

According to a definition which has been expressed by World commission, Environment and development, sustainable development<sup>1</sup> meet the needs of today's generations without

threatening the abilities of future generation in meeting its needs (United Nations, 1987).

**3.2 Purposes and principles of sustainable development**

The sustainable development concept is an important change in understanding the relation of human, nature and humans with each other. This issue contradicts with the look of two centuries ago; a view which is according to the separation of environmental, social and economic issues. It can be said that sustainable development and sustainable architecture with regard to their initial rites consider the protection of environment with changing the approach to the nature. Reforming the look to the nature and consequently changing the humans behavior to it which will lead to change the consumption culture is a very significant step in sustainable development. Originally, neither natural nor social conditions can have superiority situations to each other. A co-construction process should be recognized and searched. In this path, instead of accounting the nature as an independent and external existent which should be saved or utilized, we should understand and communicate with nature through different ways.

<sup>1</sup>- The three Rs: Reduce, Reuse and Recycle

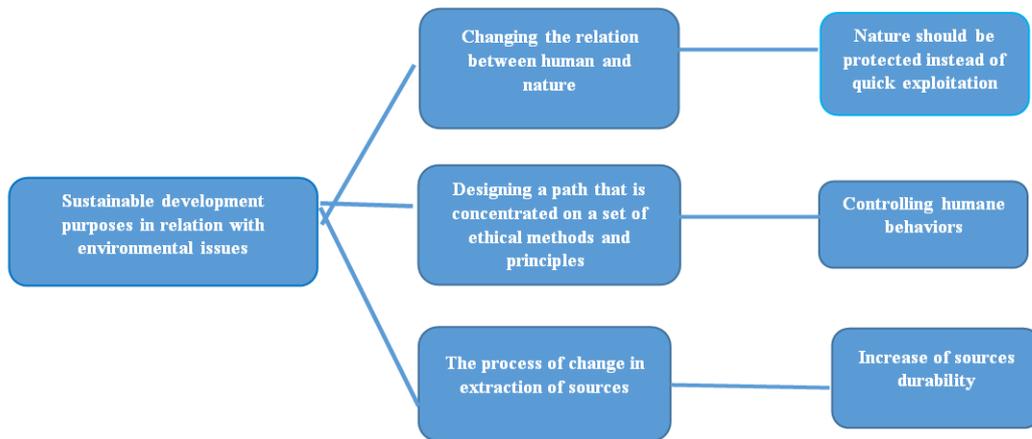


Figure 1: Sustainable development purposes

Generally, sustainable development has three main indexes:

- A) Sustainable ground of sources which is resulted from populations and ecosystems utilization.
- C) Sustainable economic development without destruction of existing sources for future generations.

- B) Biological diversity of individual species in the ecosystems ground in comparison with human utilization and more generally humans interventions.

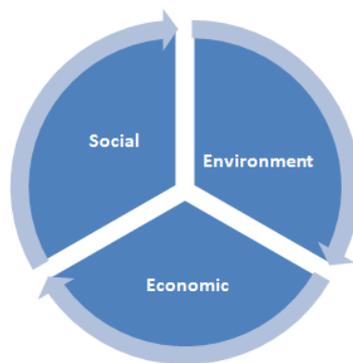


Figure 2: Sustainability domains

### 3.3 Principles and stages of green architecture

Nowadays, sustainability issue is proposed in different scientific and executive domains all around the world. In architecture, sustainability is also proposed. Imposing the least destruction on environment, regard to the biological diversity, reduction of pollution and wastes in natural environment, reduction of greenhouse gases in the earth atmosphere, use of clean and renewable energies, use of local and recyclable materials, regard to the physical and mental health of society's people economically, socially and culturally, protection and resuscitation of historical textures are some cases which are considered by sustainable architecture (Ghobadian, 2013).

In sustainable development, it is attempted that environmental issues to be observed in 3 stages of construction, residence and destruction of building (diagram 3). In the construction stage, local and natural materials should be used,; for example, stone in the mountain, brick in desert and wood in forest are from proper materials for construction sustainably, because the factory process of these materials is very small for being converted to the building materials and many costs and energies aren't consumed for transportation of them to the building workshop.

In the residence stage, it is attempted that the need to the energy to reach to the minimum and clean and renewable energies like sun, wind, or biogas energies to be used instead of fossil energy. Therefore, in sustainable architecture, using of fossil energy is prevented as much as possible. One of the problems in current century is the limitation of fresh water and incremental need of human to it. Therefore, this vital material should be used correctly, with awareness and least prodigality. Due to this, at first by using of new equipment, the consumption of it should be reduced. Using of rain and well water, saving and refining it in the place are emphasized by sustainable architecture. Also reuse of rubbish or in other words, rubbish separation in the origin and hygienic disposal of it in a form that creates the least local waste are from other cases which are considered in sustainable architecture. Nowadays in western countries and somehow in our country, cases like paper, cardboard, glass, plastic and metals are separated from rubbish in the origin and each one above cases is sent to the related factory for being converted to the materials for new products.

In the stage of building destruction, it is attempted that building materials such as brick, stone or girder to be reused and wastes or what isn't reusable are disposed correctly (Ghobadian, 2014).

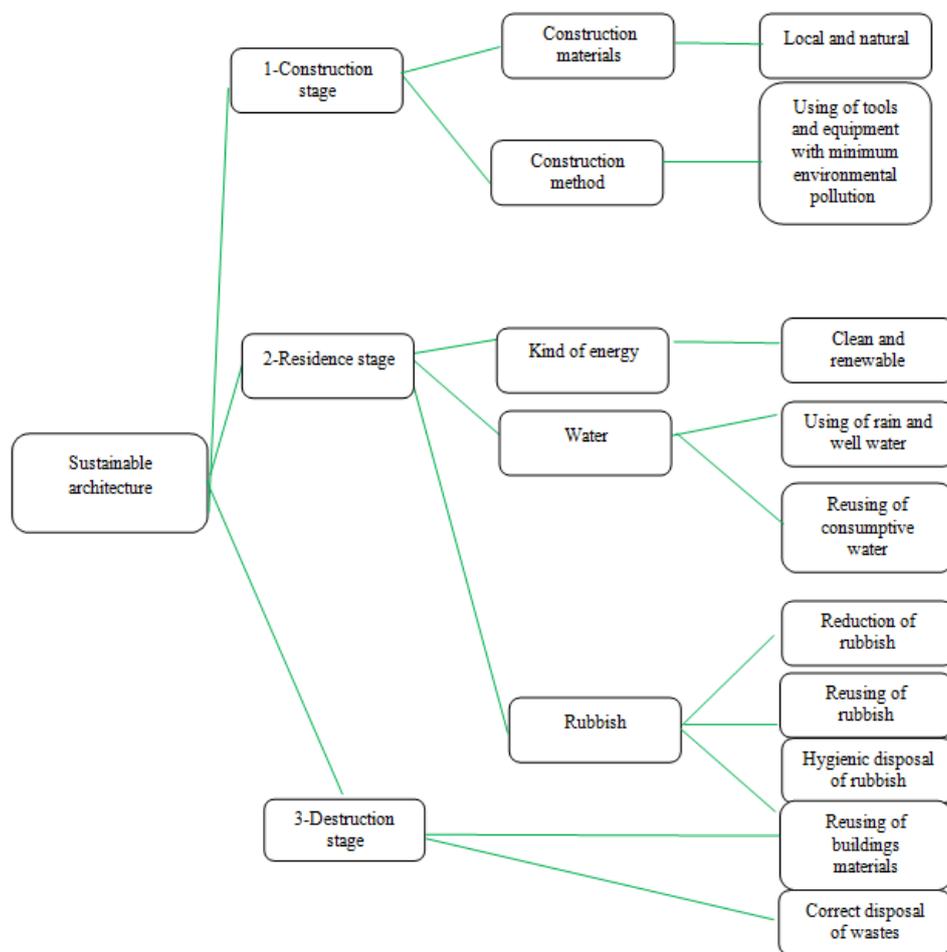


Figure 3: Triple stages of sustainable architecture for protection of environment (Ghobadian, 2009)

Green designing stages include compiled planning. Planning includes recognition and evaluation of needs, formation of specialized work-groups, designing according to the region conditions (climate, topography and kind of soil), selection of designing site, selection of green materials, selection of green mechanic and installation system, utilization of site and natural landscapes, constant protection and repairmen (Dashti Shafiee, 2013). A study which was done by the environment section of Canada in Toronto in 2002, indicated that urban temperature will be reduced from 1 to 3° if only 6 percent of the city's roofs are green (government of Canada, 2002).

### 3.4 Green architecture in Iran

In Iran also green architecture hasn't been unknown and historical city of Masouleh can be accounted as one of the most successful samples of local architecture experiences in green building which has ecological and environmental architecture designing and urban texture (Dashti Shafiee, 2013).

In Iran according to the last announced statistic, 41 percent of the whole energy consumption in the country is in the domestic and commercial section. An architect should design a system which is compatible with the processes of biological system and natural energies consumption with the least destruction in the biological system and also he/she should use of renewable sources cautiously. Therefore, green architecture has proposed itself as an architecture compatible with climate and most of architects in recent decades have had abundance tendency to design the buildings in the green architecture domain (Dashti Shafiee, 2013). In relation with metropolises like Tehran that on one hand is facing with environmental pollutions like air

pollution, pollution arising from urban sewage, acoustic pollution, pollution of superficial waters and on the other hand due to the existence of thermal islands and increase of temperature in urban centers arising from non-standard and non-homogenous development of urban textures and with excessive consumption of fossil energies, it seems that now the best time for expansion of green architecture is accounted as the effective solution in optimization of contemporary urbanism of Iran (Ghiabaklou, 2010).

### 4. Executive solutions of green architecture in Tehran

- Project designing and multi-purpose maps in which the residential and commercial uses have been combined with each other in order to help to create alive communities and also reduce the fossil pollution sources of machines.
- Maximum use and expansion of public transportation, biking paths and pedestrians to the significant and necessary services of city.
- Using of walls, facades and green roof has the main role in management of waters arising from raining, recycle of water, reduction of greenhouse gases effects, environmental diversity in urban creatures (plants and animals), prevention from UV radiation to the building, reduction of temperature, moderation of air, improvement of climatic quality and creation of air conditioning in the city, creation of urban beautiful landscapes, palatability and utility of urban spaces, cleanness and reduction of air pollution, saving the energy, reduction of acoustic pollution, reduction of costs related to the protection and replacement of buildings' roof, creation of tranquil environment in the urban chaotic areas and increase of new spaces for recreational activities<sup>2</sup>.

- The buildings should be replaced in a manner that the existing environmental and climatic situation to be utilized maximally and the building should be designed compatible with it, like using of vegetation flexible with autumn in the southern side and eastern and western expansion of buildings for optimum planning and using of solar energy.
- Using of natural and renewable energy for houses and commercial places which have high share in energy consumption.
- Using of clean energies instead of fossil energies which have high pollution.

<sup>2</sup>- [www.civilica.com](http://www.civilica.com)

- Using of solar panels and heater and saving it in the designed sources and using of it in the cloudy and cold days of winter and autumn.

Nowadays, the buildings also form a part of environment and create a great part of environmental pollutions. Of course, construction cannot be stopped but with a precise thinking, designing and planning, those kinds of buildings can be constructed which have the least negative effect on the environment (Zandieh, 2010).

### **The effective factors on increase and reduction of constructing green buildings**

#### **Advantages**

Encourager policies of government, subsidy and facilitating in using of new and clean energies and green materials

Informing and educating the architects, designers and utilizers of advantages and life quality compatible with environment and green architecture

Increase of fossil energies cost

#### **Defects**

Slow procedure of promoting clear standards of construction and grading the buildings in the energy consumption section.

Slow procedure of controlling the qualitative level of execution by contractors

Unawareness of profits and positive effects of these constructions on the environment, future and life quality of humans.

Encouragement and unsparing supports of mayors in this regard have led that the owners of constructions to find out the advantages of applying this technology in designing, planting, allocating and constructing the roof-gardens and value added arising from them. According to the existing estimates, nowadays about 10 percent of all roofs in Germany somehow are green roof<sup>1</sup>.

### **5.1 The models of converting Tehran to the green city**

Difference between a new green roof and a traditional green roof is related to the difference of purposes and materials applied in this kind of roof; the main purpose in the past has been the use of grass for insulation and elimination of caulk layer that has been often accomplished by trees' bark.

But nowadays, green roof is constructed with the purpose of environmental and economic health and in relation with improvement of management, reform of superficial sewage in the city and regard to the aesthetic issues (Ghiabaklou, 2010). With increase of modern world's problem, sustainable systems were placed in the priority of developed countries' policies. Developing countries like Iran now are also seeking for

execution of these policies in order to solve different cultural, social and environmental problems and with considering the economic consequences.

The costs of designing and executing a green roof shouldn't be compared with the costs of a normal roof; rather this comparison should be accomplished with stupendous costs arising from water, air and environment pollution, diseases and death arising from these pollutions, individual and social damages arising from lack of green space in artificial environment. Heavy costs of using of fossil fuels downwards, deep psychological effects arising from ugliness and inanition of cities, problems arising from flood-waters, costs of controlling the superficial waters, costs arising from insulation, re-execution of traditional black roofs should be added to the above costs (Keshtkar Ghalati, 2010).

Incremental and imbalanced development of Tehran city has caused to increase the procedure of land demand for construction of different uses especially house. In urban uses planning, the amount of per capita is an important tool which can play role in providing urban designs and manner of distributing and dividing the lands in the city. With regard to the development of strategic designs and abolishment of comprehensive traditional designs, the attitude of using of urban per capita has been changed to high extent. One of the achievements of this new approach includes: emphasizing on the quality issue vs quantity and valuing the people' participation. According to the existing information, the constructed lands (roofed) with different uses have formed 67.9 percent of Tehran's space with an area of 730 km<sup>2</sup> and the rest is related to the passages and open spaces. With regard to the population of Tehran city, the land per capita averagely is 81.9m<sup>2</sup>. The most per capita of uses is related to the residential per capita with 22 m<sup>2</sup> which has allocated 26.9 percent of the constructed lands to itself<sup>1</sup>. According to the statistics of Tehran municipality, total area of parks in this city is 1298.6 Hectare currently. Among urban regions of Tehran, the most ratio of green space level to the total area of region is 77.45 percent in region 22<sup>2</sup>. The standards of green space determined for each person is 12m<sup>2</sup> that with regard to Tehran's population with 13 million persons, the per capita of existing green space is less than standard. In such conditions, with encouraging the citizens to execute green roof design, at least about one-fifth of Tehran city level can be converted to the green space and the amount of air pollution can be reduced tangibly (Razavian, 2010).

It is suggested for achieving green city of Tehran, in some cases, installation of green roofs to become in a law form like the lands that formerly have had green use, the areas with pollution crisis, factories, workshops and all buildings which pollute environment, all buildings and installations dependent on the organization in charge of green space, environment and related organizations, granting special supports like selecting superior designs of green roof or encouraging the assemblies which are environment lovers, creating ground for designing and executing the floored parks in the areas with high congestion which are facing with shortage of standard green space. Applying these policies in the society causes to propagate the use of these roofs (Keshtkar Ghalati, 2010).

### **6. Conclusion**

Green architecture is an old process because it has existed in many traditional civilizations and architectures such as traditional architecture of Iran fundamentally. Between the years of 1950-1990 in most of the countries, multi-floor buildings constructed with «international style» were similar with administrative buildings. Ventilation device was substituted instead of natural ventilation. Construction of terrace was ignored and nature lodged for automobiles and parking. The environment ministration of America defines green building in this manner: "a process for increasing the building quality in which for the buildings and placement of them, water, energy and materials have been used and the negative effects of building on the human and environment health are reduced through better

location, construction designing, execution and protection of full life cycle of a building". Therefore, green building participates in ecosystem positively.

In Iran, according to the last announced statistics, 41 percent of total energy consumption of the country is in the domestic and commercial section. In green architecture, designer has constrained the natural energies and use of them in the buildings in best form. In a green building, those kinds of materials are used that don't damage the nature and rather they are recyclable, a building which has been constructed by using of materials in its environs and in establishment of such a building, easy access to the proper public transportation is considered. It is attempted that the building to be constructed with regard to the optimum direction of sun radiation and with the purpose of using of natural light and acquiring clean energy; and the importance of compatibility and balance of environment constructed by human in this kind of buildings is in priority but in "the profession related to the construction and sale of buildings", providing a way and possibility for entering the nature to the building isn't very important that although these solutions at first look contradict with governing thoughts, but finally they are as the most economical methods of architecture.

Study of 2002 in Toronto, Canada which was done by the environment section of Canada indicated that the urban temperature is reduced from 1 to 3°. If only 6 percent of the city's roof is green, although designing the green buildings will be good but it will not be promoter of affairs and it should be done simultaneous with a green urban designing. With regard to this issue that the construction of green space in the cities due to the shortage of land and its high price is very expensive and most of the lands have been occupied by buildings and streets, with converting the building roof to the garden, the nature conquered by the city can be returned to it and the per capita of open and green space can be promoted in the cities. Simultaneously, construction of roof-garden is an effective and cheap solution for reduction of environmental pollutions. The standard of green space determined for each person is 12m<sup>2</sup> and with regard to the population of Tehran metropolis with 73 million persons, the per capita of existing green space is less than standard. In such conditions, with encouraging the citizens to execute the green roof design, at least one-fifth of Tehran city level can be converted to the green space and the amount of air pollution can be also reduced tangibly. Basically, the per capita of open and green spaces can be protected and promoted by expanding vertical green spaces in the buildings and their facades and also ordaining green construction laws in the domain of townships around large cities like Tehran. The costs of designing and executing a green roof shouldn't be compared with the costs of a normal roof; rather this comparison should be accomplished with stupendous costs arising from water, air and environment pollution, diseases and death arising from these pollutions and individual and social damages arising from lack of green space in the artificial environment (Gazze, 2010).

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## REVERSE ENGINEERING GEOMORPHOLOGIC (REG) IMPLEMENTATION FOR THE REGION GEOMORPHOLOGIC ANALYSIS

<sup>a</sup>MEHRAN MAGHSOUDI, <sup>b</sup>SEYYED MOHAMMAD ZAMANZADEH, <sup>c</sup>MOJTABA YAMANI, <sup>d</sup>ABDOLHOSSEIN HAJZADEH

<sup>a</sup>Associated professor of geomorphology, Tehran University,

<sup>b</sup>Assistant professor of Geomorphology,

<sup>c</sup>Professor of Geomorphology, Tehran University,

<sup>d</sup>Phd Student of Geomorphology, Tehran University,

Email: <sup>a</sup>maghsoud@ut.ac.ir, <sup>b</sup>zamanzadeh@ut.ac.ir, <sup>c</sup>myamani@ut.ac.ir, <sup>d</sup>hajzadeh6331@gmail.com

**Abstract:** This technique (Reverse Engineering) is used in most fields and equipment reconstruction, but in the field of geomorphology has not found a place that in this paper, the new idea of using this method is shown in geomorphology based on REG concept, it can be said that geomorphology unknowns consisted of the three vectors of displacement, velocity and time. It can be concluded that the geomorphological reverse engineering that is the idea of using reverse engineering in geomorphology and is presented here.

**Keywords:** Reverse Engineering, geomorphological reverse, Implementation for the Region, REG

### 1. Introduction

Reverse engineering, is the processes of extracting knowledge or design information from anything man-made and re-producing it or re-producing anything based on the extracted information (Eilam, 2005). Geomorphology can be defined as follows:

Geomorphology as a discipline in Earth Science has its roots from Geology, Hydraulic Engineering and Physics. This is

different from other natural sciences in that its focus is on the study of the processes of production, movement and storage of sediment within the landscape and on the characterization of the features these processes produce. In its widest definition, Geomorphology encompasses the study of glacial, coastal, slope, wind and fluvial processes of sediment movement across the surface of the Earth (Sear et al. 2003).

And in other definition, the Geomorphology is therefore a discourse on Earth forms. It is the study of Earth. It is the study of Earth's physical land surface features, its landforms-rivers, hills, plains, beaches, sand dunes, submarine landforms, landforms of other terrestrial and myriad others (Huggett, 2007)

So, according to these definitions of reverse engineering and geomorphology, it can be said that the geomorphological reverse engineering that is the idea of using reverse engineering in geomorphology and is designed by the authors, is defined as follows:

This method (REG) is based on the size and direction of processes and physical forces and geometry of geomorphological landforms during time that modeled landforms changes on the basis of four parameters (x, y, z, t). Components of coordinates (x, y, z) obtained through mapping techniques, descriptive characteristics through sedimentology, geology, hydrology, and time (t) component through dating methods. So REG model is information extraction from the geomorphological landforms and geometry simulation in the present and past and then re-creation of the landforms geometry in the coming times. REG conceptual model shown in the figure below, followed by the options of the model.

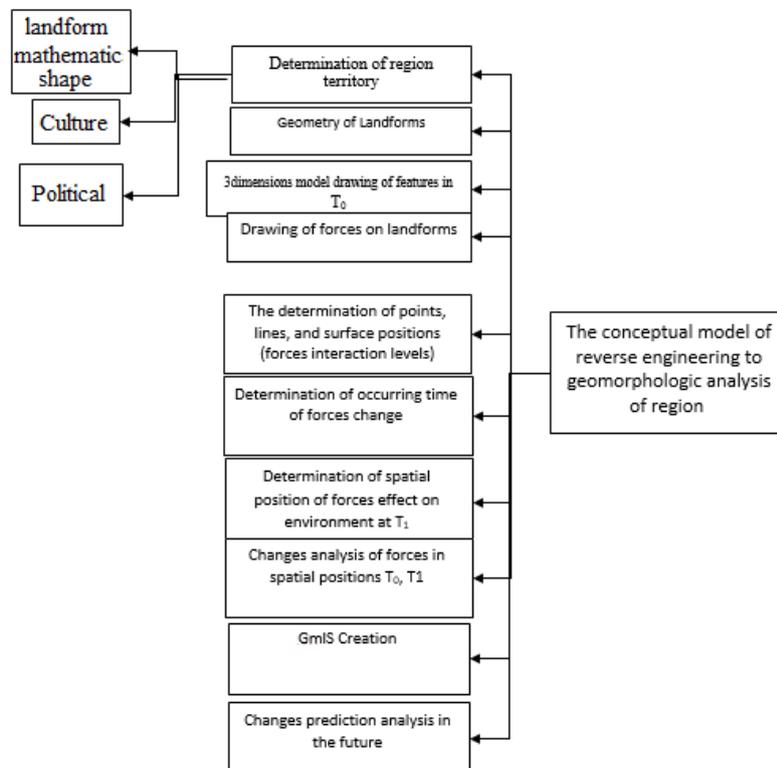


Figure 1: The conceptual model of REG

## 2. Description of REG conceptual model options

### 2.1 Determination of the studied area range

In this flowchart to start, at first the constraints must be specified using one of the mathematics, natural (basin) or political provisions that each one is described below:

#### 2.1.1 Determination of the range using a mathematical method

In this approach, the region can be determined based on mathematical geometry of features, for example, to determine the lake range, circle drawing (or close to it) or for the river, a certain buffer of river terraces, used to determine boundary.

#### 2.1.2 Determination of the range using natural methods (basin area)

In this method, landforms are specified based on the basin area. The basin area determined through topographic maps and DEM (Digital Elevation Model).

#### 2.1.3 Determination of the range using political methods

In this method, the boundaries determined based on political divisions without being affected by the topography of the area.

The case is determined according to the researcher views and region topography and basin area are not effective on them.

### 2.2 Determination of the landforms geometry

In REG model, the geometry for all features considered in three-dimensions and planar geometry is not defined for it. In principle in REG model, there is no absolute planar feature and is not defined and features that are not in three dimensions can be considered in 3 dimensions by devoting an initial value of zero ( $Z = 0$ ). The features geometry is composed of point, linear and surface topology but in some landforms, the features geometry selected as combinational due to temporal and spatial intervals that is considered as the fourth type, i.e., complex. Also, the selection of the type of features geometry depends on spatial interval of the research feature, it means that point features, such as mud volcanoes can be considered superficial if they would be investigated locally.

This division has been obtained by vertical looking (vertical profiles) to feature such that if you look at to feature from horizon (horizontal profiles), feature geometry may change, for example, dyke feature considered almost as points and in horizontal look as linear. And if the analysis scale is large, this feature can be investigated as superficial.

The features geometry is shown in Figure 2.

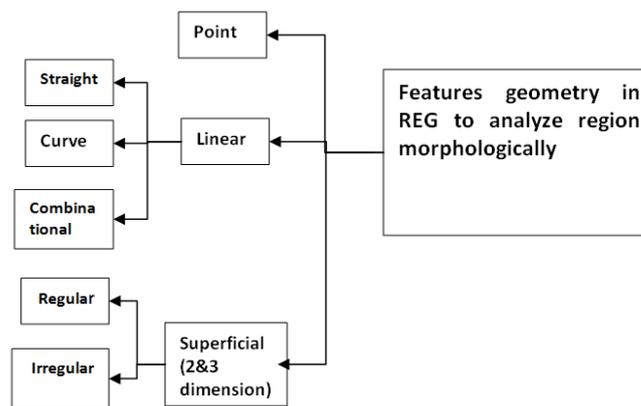


Figure 2: Features geometry in REG

### 2.3 Drawing of features three-dimension model

At this stage, features are drawn using associated software in three-dimensions and the position of each feature can be drawn in appropriation to the entire region, it means that the region studied in terms of topography. The aim of this work is putting the basic computing level for investigation and subsequent analysis that other changes and analysis measured in appropriation to the computational level and ancient changes as well as future changes can be surveyed according to it. The drawing can be seen in the present time  $T_0$  and long-term changes are shown as  $T_1, T_2, T_3, \dots$  and forthcoming changes as  $T'_1, T'_2, T'_3, \dots$ .

For geomorphological analysis of region, it is required that each feature be studied and each of features put in a reverse engineering cycle and morphometric changes are obtained. It should be noted that in this cycle, some features have more severe morphometric changes than others and some have no changes or less severity. The output of this stage is as topographic and geomorphology maps.

### 2.4 Drawing of forces on features

Identifying the force physics is surveyed from the direction and intensity of forces. Different forces applied on each feature in micro- or macro scale that some of these forces become active in different time intervals and reach to its critical level and reshape the feature. The time parameter has importance in force survey because the effect of some great forces in short periods of time is negligible and creates minor changes in the form and geometry of the feature and vice versa. By better understanding the forces and the effectiveness of them, future changes can be modeled and predicted.

### 2.5 Determination of the position of points, lines and surface of forces interaction

For each feature in the specific geometric position, the resultant force reaches to its maximum value that the understanding of the situation in REG model is important for further analysis and mapping their effectiveness. For example, in a trench, there are multiple layers of sediments of various sizes that the texture of each layer and the next layer is separated and in almost uniform layer it can be said that process and equal force applied in the

certain time interval and as soon as the force and environmental conditions change, layer texture changes. The border of the environment and force change in REG model has importance in order to define the secondary topology.

### 2.6 Determination of occurring time of forces change

The force changes determination can be detected from changes in texture, geometry, type. The time of these forces occurring can be estimated exactly as relative or absolute by measurement of years. In calculation of changes in time, landforms changes, the rate of changes, compared to the basic time  $T_0$  are useful.  $T_1$  time related to force  $F_1$  that  $\Delta t = |T_0 - T_1|$  has distance to initial time ( $T_0$ ) can be considered as basic time for the time before it, i. e,  $T_2$ .

### 2.7 Determination of the spatial position of forces effect on the environment in Time $T_1$

Each force affects on the environment and being affected by the environment in a spatial position according to its intensity that the greatest effect is on the focus of environment (point, line or surface) and by going away from the focus, the effect will be less. With knowledge of the spatial environment and force, the interaction between the force and the environment can be analyzed. With spatial position, the changes on the environment can be studied in the present or future.

### 2.8 Analysis of the changes in forces in 2 spatial positions $T_0, T_1$

Initial levels at the time  $T_0$  and lower levels at  $T_1$  have the time difference  $\Delta t$ , which in the time interval some changes occurred that turned lower level to the initial level (or superior) for previous changes. In this interval, the number of processes applied on the lower environment and caused changes in the lower forms. These forms and processes are known using some laboratory, field, and library works and archeology.

### 2.9 Creation of GmIS (Geomorphological Information System)

Geomorphological Information System (GmIS) as a special type of Geographic Information System (GIS) focused on collecting, maintaining and analyzing geomorphic information is an excellent tool for geomorphological analysis. This idea (GmIS) has been mentioned by several authors (e. g. Barsch, Dikau 1989, dikau 1992, Minar 1996, kusendova 2000, vozenilek et al. 2001). However, some problems remain which we would like to solve.

The structure of the physical model follows the logical model and is divided into three parts:

Adopted layers (hydrology, geology, topography and others), basic layers (elementary forms, digital elevation model and derivatives, documentation materials, genetic groups of landforms, morphodynamic phenomena, basin based features and geomorphic network) and special layers (morphostructural analysis, comprehensive geomorphological analysis and so on) (Mentlik et al., 2006)

### 2.10 The analysis to predict changes in the future

In REG model with possessing landforms geometry components, the forces acting on landforms, and descriptive characteristics in various APECs, the landforms movement path from the past to present can be simulated, and by determination of path and  $T_i'$ , the movement rate and direction of landforms movement can be modeled at time  $T_i'$ , in other words, landform position can be simulated in the future.

## 3. Tools and data

To implement the reverse engineering geomorphology, data and tools are needed to be able to model forces acting on landforms and also apparent geometry of landform. For the apparent geometry of landforms, 2 models of DTM (Digital Terrain Model) and the DEM (Digital Elevation Model) used. In DEM only parameter Z (height) of area with high precision is achieved but in DTM, all three components (X, Y, Z) of region from land surface are displayed. In this model, the artificial features surface is not displayed, but normal surfaces of land, i.e., dry lands, lakes, rivers are shown. In another model called DSM (Digital Surface Model), artificial features surface is shown. To specify a range, the satellite images are viewed and different maps used that output accuracy of REG model depends on the accuracy of input data. To determine the time, carbon-14, OSL (Optically Stimulate Luminescence), TL (Thermo Luminescence) methods, uranium-lead method and other methods can be used.

Also to explain and model the internal and external forces, the laws of physics, hydrodynamics, tectonics, gravity are used which vary according to the location of region. For better forces, engineering software, simulation software, programming can be used.

## 4. The method of implementation

According to the velocity- movement relation (Halliday et al., 2013),  $\vec{x} = \vec{v} \times \vec{t}$ , that is composed of the three vectors of movement, velocity and time, third vector can be obtained using 2 vectors.

By mathematical modeling of feature, it can be considered as a rigid body and all forces acting on it be modeled and obtaining the intensity and direction of the forces, their resultant forces are estimated.

Then, calculating the mass of landforms, its acceleration can be estimated. By knowing acceleration, landform movement velocity can be estimated. Finally having time and velocity, the landform movement would be estimated (following relations)

$$\begin{cases} \sum \vec{F} = m \vec{a} \\ \vec{v} = \vec{a} t \\ \vec{x} = \vec{v} t \end{cases} \quad (1)$$

In this formula,  $x, v, t, F, a$ , respectively, are acceleration, force, time, velocity and movement. Since the forces acting on the landform change constantly so the landform movement is accelerated. Landforms have variable direction and velocity over time so have accelerated movement. Used time in REG dependent on the type of implementation (regressive or progressive) is as follows.

This means that present time regarded as the base time (zero) and used as an observation and also by help of it and other observations, landforms can be modeled in the past. Finally, based on landforms details in the present and the past, the landforms situation in the future can be predicted.

## 5. The division of time

In REG method, the time parameter is defined according to following diagram and consisted of 3 parts of basic time  $T_i, T_0, T_i'$  which are related to the past, present and future. It is better that these times be related to fundamental changes in the geometry of landforms, the layers texture.

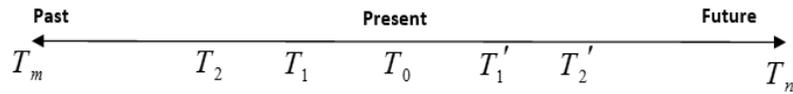


Figure 3: The division of time in REG (the authors)

REG model has errors in proportional to the accuracy of the input data. Among effective errors in modeling REG, carefully dating, mapping precision, landforms boundary determination accuracy, precision of experiments, drawings precision can be mentioned. Which must be modeled from rules of errors report and the error rate balanced. (Ranjbar and Hajizadeh, 2016)

## 7. Conclusions

based on REG concept, it can be said that geomorphology unknowns consisted of the three vectors of displacement, velocity and time, which show the same relationship  $\vec{x} = \vec{v} \times \vec{t}$  that some vectors are in unknown different positions of research. REG model can be presented as integrated and comprehensive way to simulate geometrical and physical landforms. REG method is a tool to predict changes in landforms. If in the REG model, data and detailed log information be introduced, it can model the evolution of landforms in an engineering approach and by modeling landforms and future changes, finding location and land use and land preparation in the region are implemented.

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## DEVELOPMENT AND GLOBAL ARCHITECTURE OF EDUCATION

<sup>a</sup>HESAM PESIANZADEH

<sup>a</sup>Islamic azad university, Oslo University College, Tehran, Iran  
Email: Hesampesianzadeh.12@gmail.com

Abstract. Globalization is used for transferring the dominant culture which is not only different but contradictory in terms of social, cultural, and historical aspects with the culture of many other societies. Also, many international organizations and executors trying to make positive changes in different societies are facing with such challenges mentioned above because their thoughts are based on western epistemology discourse. This paper briefly has tried to study the theoretical and practical support of global architecture of education and show the challenges of these international organizations. In order to clarify this issue, two countries such as South African as a country affected by socio-educational changes by international organizations and Cuba as a country whose education system is based on historical and cultural values has been analyzed.

Keywords: Globalization, developments, educational development, Global architecture of education.

### 1 Introduction

Educational development in a global world is one of the complicated contemporary concepts today. In one sense to have "education" is a fundamental right for human beings and is essential to have development in society. However at the same time, education for who and for what is a very important question. "Development" itself also is a very contestable concept because in post-colonial countries some people see development as a new tool to colonize their mind and use the society's resource as their previous historical experience was. Another concept that is very complicated is "Globalization" which has a positive and negative side to it. Global organizations are practical side of globalization that have advantage and disadvantage role over the many years in world.

However, it is important to understand relationship between education and development in an African context in order to understand the positive and negative role a global organization may have in developing their life condition.

The first part of the article will discuss education and development as concepts. Secondly the article will continue by discussing global architecture of education and the role of global organizations like the World Bank and UNESCO in an African context. To have more practical discussion both in terms of broader socio-historical and cultural relations in development, South Africa and Cuba will be looked at.

### 2 Education and development

In the first part of the article, the writer will try to examine the relation between education and development at a global level. To put light on this, the article will try to use Serpell (1993) as a theoretical framework to understand education in a developmental sense.

According to Serpell (1993), the economic, cultural and pedagogic agendas of schooling, seek to promote 'economic progress, transmission of culture from one generation to the next, and intellectual and moral development' (Serpell, 1993.). Serpell is trying to explain how those three agendas have an important role in educational policy around the world. Earlier, the schools' role was to transfer culture from generation to generation, however, much attention has turned to economic and pedagogic role of the school (A. Breidlid, 2003; Hoppers, 2002; Serpell, 1993; Tucker, 1999). Therefore, nowadays education is seen more as an economic, cultural and pedagogic agenda system to reach development in societies.

As Fagerlind and Saha (1989) mentions: "There have been few concepts in social and economic thought which have been as ambiguous as that of development the terms has been used in a variety of contexts, often clouded with political and ideological

overtones" (p.4). In addition, Holmarsdottir (2006) explains there is two differing conceptions of development "development conceived of as increased prosperity, measured in terms of economic growth", which is a neo-liberal assumption. Secondly, development is to meet human needs, which enables the potential of human personality to be realized (p.2). The dominant view to development is to see countries develop based on the "economic-growth paradigm". Though there are disputes over this, still the dominate perspective categorizes countries into "First world" and "third world", the first world referring to industrial western countries and the third world applying to countries where the economy growth is not high and they are usually located in the global south.

Therefore, it is very clear that the dominant understanding of development is the neo-liberal perspective of development (Ilon, 2002, Holmarsdottir, 2006) that plays a crucial role in educational policy at a global level. Further, the discussion now turns to the background of development theory in order to show how it has affected educational policy.

According to Fagerlind and Saha, "Ideas and concepts do not occur in a vacuum but are products of the social, cultural and historical events surrounding them. Such has been the case in the thinking about development" (1989, p.5). So after World War II, the European people experienced horrible times and thus, different development theories emerged. One of the theories that effected education was human capital theory that "postulates the most efficient path to the national development of any society lies in the improvement of its population that is its human capital" (Fagerlind& Saha, 1989, p.18). Furthermore, human capital theory was developed by economist as a reaction to other theories that were developed by sociologists and named it modernization theory (ibid.).

Modernization theory is a "intellectual responses to the World War two" (Fagerlind& Saha, 1989, p.15). In modernization theory, modern values like achievement motive which is seen by McClelland as essential to have open societies, which in turn provides economic and technological advancement which is necessary to have modern and civilized societies (Fagerlind &Saha, 1989). For modernization theory, education is directly related to the acquisition of modern values to reach economic development. Likewise, for human capital theory education is viewed as productive investment, as Schutz (1961) states: that "educated population provides the type of labor force necessary for industrial development and economic growth" (Fagerlind& Saha, 1989).

It can be argued that these two perspectives are linked to the global architecture of education. I think as Fagerlind and Saha mention "As with modernization theory, human capital theory provided a basic justification for large public expenditure on education both in developed and developing nations" (1989). Furthermore, this view helped global organizations to enforce a Western epistemology on to countries with a different social-historical context. Hence, they are affecting their cultures and values. Now the article will explore the nature of global architecture of education. In addition, it will discuss the World Bank as one of the oldest global organizations that is involved with education.

### 3 Globalization

As Levin Institute (2011) point out:

"Globalization has become the new buzzword and is often defined as a process of interaction and integration among the people, companies and government of different nations, a process driven by international trade and investment and aided information technology" (Sited in Breidlid, 2013). Hence, globalization is one of the difficult concepts to define, but there is some common understanding of it. As Held (1999) mention

“Globalization as the widening, deepening and speeding up of world-wide interconnectedness in all aspect of contemporary social life, from the cultural to the criminal, the financial to the spiritual” ( Crossley& Watson,2006). In addition, as Wallerstein points out, there are two sets of globalization, old and new one. With the old one we refer to colonization and capitalism that began 500 years ago. So for some societies, “globalization” is the continuing of modernization and westernization of other cultures. As Chakrabarty (1992) point out: “Modernity is something exclusively invented in isolation in North-western Europe, but has been assimilated, incorporated, molded, and universalized to fit European colonial expansion” (Breidlid, 2013). Hence, some people see globalization as new a version of colonization which has changed face in the later years. For them global architecture of education is the main tool that western is using to colonize their mind and ignore their cultural value.

Globalization has also some advantages as H.S Bhola (2003) states optimistically: “Brought about its dialectical opposite; the desire for localization, the search for community, indigenous values, mother tongues; and the wish to search preserve cultural heritage, and indigenous knowledge” (sited in Breidlid, 2013).It can be argued that, we should see social phenomena form two angles before judging. For example, globalization has opened many doors to spread information between people which can provide more understanding about each other and can bring more peace to our world.

### 3.1 Global Architecture of Education: Historically and in context

Global architecture of education is part of complex a process that emerged with “Globalization”. As Jones (2007) points out “A complex web of ideas, networks of influence, policy framework and practice, financial arrangements and organizational structure (2007).

It is important to discuss the global architecture of education because it plays a homogenizing role in many countries with different social and cultural contexts “The global architecture of education or the global educational discourse has had and still has, enormous consequences for how the school systems function in various parts of the world” (Breidlid, 2013).Furthermore, it is essential to understand the historical background of that concept to fully comprehend the effects of it today.

Since Enlightenment, to have modern values and modern society became the main discourse in Western European. A main feature of modernity is the idea that everything from the western world is scientific and logic. Any culture that does not fit into sciences is unscientific. This view has led western society to take their assumptions as universal and led them to spread it to other regions. In global architecture of education “The view that education should be a part of the market is normalizing which results in governments taking less responsibility for the education sector in their country, leaving it to the private sector (Jones, 2006).

Likewise, modernity and westernization with privatization of education that was background for globalization led western societies to understand their education as “right” education system that can be fit with other context. Consequently, “Transferring of education” emerged.

When transferring of education, it was done to improve other countries’ socioeconomic situation, and it was thought a need to transfer western understanding of education to the global South. The idea was that education could be exported to other countries in third world, so from practice to theory would produce what already existed in western society. Although all experience show that idea of transferring is not really sufficient, according to Tucker: “The transfer of goods, gadgets, capital, technology, hospital and roads. The economic policies and the economic

accomplishments of the west cannot be replicated in the Third world countries.

As was mentioned above, one of the main tools to transfer Western epistemology to the Third world is global organizations. One of the most important organizations that is active in educational development is the World Bank, and therefore, the article will now discuss the structure of the World Bank structure and how it has been a source of failures and frustrations in countries in the attempt to make developmental progress.

### 3.2 World Bank as global organization:

There are many organizations that are active in the sector of education since it is often regarded as a means to a better end. Therefore, “it has gained a central role in the international system of development and aid” (Shiotani, 2010, p.5). Based on the World Bank report in 2011, the organization is one of the important actors in education:

“The World Bank has probably been the most important contributor around the globe in education over the past 50 years; it has been the single largest source of support in the field of international education. The Bank has, since its inception, invested more than \$69billion globally in education through more than 1500 projects. The Banks support for education in terms of loan commitments was more than \$5 billion in 2010” (Breidlid, 2013; p.73).

It can be argued that the World Bank plays important role in transferring Western educational discourse to the South. As Breidlid (2013) states:

“The world Banks entire history, its creation, and its rationale are rooted in the post-war reconstruction (and development) of capitalist economies according to the dominant Western/Eurocentric paradigms that scientific knowledge leads humankind’s dominance of nature for endless, linear growth, and development”.

This quote here is to show the nature of World Bank is as a main actor in education, which is based on economic and western scientific understanding of the world. It is discourse because power and practice have significant role on it. In other world, “development has uniform characteristic” (Crewe &Harrison, 1998). This uniform is economic (both modernization theory and human capital theory) which believes that to have modernity and development in society, we should try to have modern humans as well.

From that point of view, the World Bank take knowledge produced in North and transfers it to South in order to aid development in society. In other words, their policy “is one size fits all” (Kless, 2002, Breidlid, 2013). According to Breidlid: “In the last decades the World Bank has been associated with neo-liberal ideology, and although there have been some changes, its belief in the Western educational discourse have remained constant”.

Consequently, Word Bank is not just an organization that distributes money to develop the educational situation in the South but is also a promoter of the western hegemonic discourse on education (Jones, 2004). It is a kind of discourse that is more European-centered understanding of education which ignores cultural and historical context of countries in the South. “This one-size-fits-all approach, besides its modernist and unsustainable profile neglects the fundamental differences in educational topography in the various countries where the World Bank enters to assist” (Breidlid, 2013).

This is the place that global organizations have failures and frustration result in educational development because firstly, they teach their partners in South to be dependent on them so they are not as self-reliant as they could be. Secondly, those countries that normally have corrupt political systems, try to

attract more money, and aid money can end up financing corruption instead of helping people. Thirdly, the price of development may be that people forget their own societal cultures.

### 3.3 Two sides of the same coin

It should not be forgotten that the World Bank has also had a role in helping people in different countries to have a better standard of living. Furthermore, World Bank has had a positive role to give basic education to children and youth in different countries so that they are able to know about their culture and indigenous knowledge. Secondly, the World Bank activities are helping to spread educational technology like computer and internet in the South countries. Spreading knowledge around the world can give countries more opportunity to see different points of view and opportunities to know different ways to face their problems. Third aspect of the World Bank is that they are trying to change their programs as Kless (2002) states: "The Banks changes in development rhetoric to include empowerment, participation, even partnership, have positive aspect". Also, as Breidlid (2013) points out, World Bank education Strategy 2020 includes three new areas: "Knowledge generation and exchange, technical and financial support, and strategic partnership".

Hence, it may be noted the World Bank has progressed from their neo-liberal perspective to recognize their partner's rights to organize their education system based on their social-cultural context. We should keep in our mind that change is not something that can happen in one night. For the World Bank (2011) "Education is fundamental to development and growth" (Breidlid, 2013). Before moving to the second part of the article which will discuss South Africa and Cuba, it is necessary to explore what is meant by African values and culture? Which aspects of societal cultures are neglected by global organization?

## 4 Results

### 4.1 Tradition, Home culture, Modernity in Africa:

We cannot find any society without inherited cultural values as Gyekye (1997) argues:

"It may be said that from the point of view of a deep and fundamental conception of tradition, every society in our modern world is traditional inasmuch as it maintains and cherishes values, practices, outlooks, and institutions bequeathed to it by previous generations".

However, behind each modern society, tradition has taken place. Often, unfortunately, everything that is modern looks better than tradition, and tradition is usually seen as "rural, unscientific, and resistant to change" while "modernity is characterized as scientific, change-oriented, dynamic and urban" (Breidlid, 2002). From here, it could be helpful to discuss tradition in general and what is tradition and culture in Africa, in abroad sense.

Fleischacker defines culture as a set of practices and beliefs that persists over several generations and tradition as a set of practices and beliefs that persists over several generations hence "practices-rituals, customs, superstitions-that passed down from generation to generation are tradition (Gyekye, 1997). Therefore, to understand what is tradition, it is good to try to have an idea about concepts that play a traditional role in Africa, such as: Ethnicity, place and space, land, spirituality, indigenous knowledge, ancestor. Because of space limitation the writer will explain briefly some of these concepts in order to understand the Western epistemology discourse in relation to alien educational system introduced to South Africa particularly. The explanation will be related to educational part of those concepts.

### 4.2 Ethnicity and education

South Africa is not a homogenous society. The region suffered from colonization still South Africa has very diverse ethnicity that "requires awareness, sensitivity and responsiveness on the part of school leaders" (Woods, 2004, p.98). As Chabal and Daloz (1999) mention, colonization wanted to establish the nation-state based on European understanding of it which in turn greatly impacted the multi-ethnic nature of Africa.

Colonial powers and the apartheid system had significant role in the process of establishing education policy because they transferred curriculum that was not based on student home culture of the indigenous students in South Africa. Thus, they suffered because the knowledge they bring from home was not being discussed or valued in the classroom (Breidlid, 2013). So many students have to study an alien culture that is completely different to what they experience in their daily life. This can be more problematic if we think how these children should construct their identity in school. In other words, they will have socialization process that is not fit with their cultural background.

As Breidlid argues: "There is an Othering here when your own culture and self-understanding is constantly being marginalized and looked down upon" (2013; p.56). On a large scale, what some scholars argue is that global architecture of education brings to Africa an education system which is completely different with the African context. This may affect the African situation negatively. Abdi states that: "Globalization is not designed... to develop the African people and its educational prescriptions are making the situation worse for African children" (Breidlid, 2013). Hence, the global architecture of education greatly impacts on education systems, such as the one in South Africa.

It is very important to remember that there is not only one path to development, in other words: "What kind of education is appropriate for what kind of development, and in whose interests?" (Fägerlind&Saha, 1989). This is a relevant question when global organizations want to make policy for educational development. Western development in education system is impressive, however, experience shows, it cannot always have the same good results in different contexts. Any educational system should be fit with people's cultural background.

### 4.3 Indigenous knowledge

One of the important concepts in global south, and in South Africa particularly, is indigenous knowledge. Semil and Kincheloe(1999) define it as: "Indigenous knowledge (as) are knowledge produced in specific historical and cultural contexts or rules and orally passed down from one generation to the next"(as cited in Breidlid, 2013). Further, "indigenous" people can also be defined "...in terms of a shared experience of domination".

Indigenous people were affected, and still are by historical issues like colonization or that they are a minority group in their land within a dominant state system. In other words, they are not living in their cultural context due to historical or political events.

Indigenous knowledge is relevant to our discussion because it is important part of African culture as E.bldowo (1982) have exposed the "importance of metaphysics, spirituality, and religion in African epistemologies" (sited in Breidlid, 2013). Likewise, indigenous knowledge is coming from African context that is best way to reach sustainable development in Africa. As African philosopher Gyekye (1997) sees culture as socially created and nurtured meanings constituting and the greater portion of our necessary social context (Breidlid, 2013).

A western epistemology discourse, which was discussed earlier, has had an important role in the construction of the global architecture of education, which in turn has impacted on the development of educational policy in Africa. However, the

context of such a discourse is that it ignores indigenous knowledge in Africa, since from the western point of view, Western means “developed, industrialized, urbanized, capitalist, secular and modern” (Hall, 1996) and every other concept that cannot be related to that discourses is usually referred to as underdevelopment. From this view, indigenous knowledge can exist just in religious ceremonies or rituals, while numerous Africans practice it in their everyday life. African societies often see the world differently than how the western society sees it, as Chivaura (2006) states:

“The African worldview declares that our world has two aspects: they are the physical and spiritual...the difference between African and European worldviews concerning earth and heaven relate to differences in their attitudes towards the material and the spiritual” (sited in Breidlid, 2013).

Problems rise here because from western epistemology, knowledge should be secular and scientific and not spiritual, while an African understanding of knowledge is related to both the physical and spiritual part of life. Therefore, a western based educational system which is transferred to a differing context may produce an alienated person from their African culture.

#### 4.4 Ecology and indigenous knowledge

One of the areas western epistemology ignores when transferring educational system to Africa, is the ecological part of the indigenous worldview in the African context. As Semali and Kincheloe (1996) point out: “Indigenous knowledge focus on relationship of human beings to both one another and to their ecosystem ... an emphasis which has been notoriously absent in the knowledge produced western science over the last four centuries” (sited in Breidlid, 2013). Therefore, the educational system that comes from different context cannot be fit with an African context since it lacks the three most important parts, which are the human being, land and spirituality. The kind of education given teaches children a completely different set of values and has little relation with who they are historically, socially and environment part.

As Max Webers (1905) argues that capitalism is based on the assumption that “...there is a close relationship between Protestantism and capitalism the idea is that domination over nature through hard work and frugality will be rewarded by God” (as sited in Breidlid, 2013). However, African understanding of ecology and environment is as Nahtani Wane (2006) explain based on spirituality: “is vital life force that animates African peoples and connects them to the rhythms of the universe, nature, ancestor and the community” (sited in Breidlid, 2013). Hence, it can be understood there is a difference between the epistemologies of western and African societies.

African world view has different understanding of ecology and environment which can be helpful for our world when it comes to serious ecological problems. Some ecological problems have root in western understanding of environment, where man controls nature.

However, it is important to point out that indigenous knowledge does not have all answers to environmental issues in the modern world and should also be looked at critically. As Breidlid (2013) points out: “The potential rebirth of indigenous knowledge does not mean that indigenous knowledge should be essentialized, romanticized, or presented as monolithic and uncontested even by indigenous populations”. Furthermore, though indigenous knowledge are essential aspects in how one views the world, it does not mean it should form new discourses to manage world views. However, it is essential to value alternative epistemologies to solve world problems and also is necessary that African can be able to have education based on their culture, society and ecology.

To have clear idea about African context article will turn to second part that is about South Africa and Cuba. In second part,

the article will explain socio-historical and cultural relations in development in a South African context in order to understand what is the role of the global architecture of education in that particular context. Then Cuba will be discussed as a country that established a different educational system, which differs from the western epistemology. This is done in order to see an alternative to education which other countries can use to build their own systems.

#### 4.5 Part Two; South Africa

South Africa experienced a harsh apartheid education system that had different educational opportunities for black and white people. After Apartheid, South Africa tried to have an educational system based on a post-apartheid condition, therefore, they had different policy from 1994 to 2005 that resulted in curriculum 2005 (Breidlid, 2002, 2013).

Nelson Mandela and Thabo Mbeki had important roles in African renaissance and their “focus is related to building a nation where African values, knowledge and heritage are central” (Breidlid, 2013). To reach that aim, curriculum 2005 stipulates that indigenous knowledge such as their technology and science should be included in the curriculum so that students can be familiar with indigenous cultures (Breidlid, 2002). However, despite this statement in the curriculum, the South African education system is based on western science, and indigenous knowledge “play peripheral or even exotic role” (Breidlid, 2002). Hence, children’s socialization process may be alienating them because this separates students’ home and school culture. To show how it may be, article will continue to explain relationship between indigenous and western education in South Africa.

According to Breidlid (2013): “majority of school children in South Africa come from backgrounds where the key concepts and epistemological orientation that are linked to a modernist education system are alien”. In addition, as other research performed among other ethnic groups in South Africa shows, indigenous worldviews is based on “spirituality and ancestral beliefs” (Leclerc-Madlala, 1999; Mbiti, 1969). The challenges that curriculum 2005 face is because it “...is modeled on a Western discourse, depending heavily on different international context” (Breidlid, 2013). Although, other part of the curriculum which is about giving skill and knowledge to the learner so they can be useful for their country in a post-apartheid society is very worthwhile. However, these skills and knowledge may not fit with their context and what this can produce is a learner, alien to their identity. As OlugbemiroJ. Jegede and Glen S. Aikenhead (1999) point out:

“When the culture of science is generally at odds with a student’s life world, science instruction will tend to disrupt the student worldview by trying to force that student to abandon or marginalize his or her life-world concepts and reconstruct in their place new ways of conceptualizing” (sited in Breidlid, 2013,).

Interestingly, the revision of curriculum 2005 did not recognize indigenous knowledge and it tried to adapt its national curriculum to other international curriculums in the world (Breidlid, 2013). So, after many years, educational policy-making in South Africa does not recognize their own culture and society, which can offer a different alternative for educational development beyond a liberalist one. Furthermore, students in South Africa have to practice western educational system while they could be learning about their cultural capacity to contribute for sustainable development.

Department of Education (1997) in South Africa seeks to construct “a shared understanding of a common South African culture” (Breidlid, 2013). This ignores the fact that their context has multiple identities based on their historical background and social reality. Hence, what the curriculum is doing is trying to create “a sense of constructing a national identity where certain

cultural values are promoted and others are not" (Breidlid, 2013). Consequently, C2005 want to create a society based on Western understanding of a nation-state with the belief that introducing modern education will help reach western economical standard.

The growth that western societies have experienced is not being experienced in the general society of South Africa. Partly, the reason for this can be that the education system is divided into two parts. In one part, western educational perspective affects all their institutions, have a very formal structure as presented by Department of Education. On the other side, is the indigenous knowledge that is represented by indigenous peoples and communities (Breidlid, 2013). Combining these two parts can in turn have "...the possibility of generating cultural centered knowledge in a third space" (Breidlid, 2013).

Another example of westernization is that the South African education system has English language as its language of instruction in schools which can be an obstacle in children's socialization process and is a heritage from colonial time. Nguniwa Thiong'o states that: "from a word, a group of words, a sentence and even a name in any African language, one can glean the social norms, attitudes and values of a people" (1986), underlining the importance of one's own language. This is another challenge which comes from C2005 that does not recognize South African context and believe that only way to develop is to fit with a western standard of education.

#### 4.6 Cuba

Cuba has one of the best educational systems in the global South. Here, the writer will discuss Cuba's educational and social context in order to explain: how Cuba can establish a different, yet "successful" educational system apart from the global architecture of education.

The Cuban "educational system is famous for its focus on inclusion and equality of opportunity, but also for its focus on political and ideological conformity" (Breidlid, 2013). It can be discussed that to have an ideologically hegemonic educational system is a negative side of Cuba's education system, which forces people to have certain education and certain jobs. Most human beings wish to be free to choose their own lifestyle. This ideological part of education is a negative part of any education system that is ideologically based; either it is Islamic ideological education system in Sudan or Iran, or western education system that wants to force liberal values upon the global south. However, as Breidlid (2013) point out "when analyzing the Cuban educational discourse there is needed to distinguish between the educational systems ideological and epistemological foundation".

The Cuban communist government emerged after the revolution in the 1950's. The communist party runs the economy and the society. In fact, based on undemocratic and hierarchical structure of Cuba there is no other political party (Carnoy, 2007; Breidlid, 2013). Fidel Castro sees education as a very fundamental right for society as he states: "the happiest country is the one which has the best educated sons, both in the instruction of thought and the direction of their feelings" (Breidlid, 2013). From that point of view after revolution, Cuba established a literacy campaign in order to have "Free education and health care were factors that contributed positively to the improvement of the lives of those people who had been oppressed by the Batista regime" (Breidlid, 2013).

As UNESCO research in 1997 and 1999 show: "Third and fourth grade children scored much higher in math and language than pupils in other Latin American countries" (Sited in Carnoy, 2007). This research is important because Cuba has shown it can have a successful educational system without assistance from the World Bank or any other global organization. As Breidlid states: "Cuba has resisted the globalized drive for privatization, and its

merits have been accomplished with no assistance from the World Bank".

Cuba's education is free of charge from kindergarten to university so their success is not dependent on their parents' economic background. In other words, "students in the Cuban system are not disadvantaged because of present forms of racism, present forms of structural inequalities" (Breidlid, 2013). Cuba's education system is not just good in a quantitative way, rather as EFA Global Monitoring and UNESCO Report in 2005 mention "Cuba is one of four countries mentioned which have achieved high standards of education quality" (Sited in Breidlid, 2013).

In addition, Cuba is trying to combine indigenous knowledge with their educational system as Breidlid explains how Cuban children in primary school are "trained in herbal remedies, which they can prepare at home as poultices, tinctures, salves and teas" (2013; p.159). Further, students in "Grade 8 focuses on energy and renewable energy sources and their relationship to the environment" (Breidlid, 2013).

To understand how Cuba can do better with their educational system, Carnoy (2007) introduced four criteria: first) State-Generated Social Capital Matters as Cuba education system spend resource to have equal and high-quality education for all children in a safe and healthy environment. Second) Curriculum Matters, but its Implementation Depends on Teacher capacity as Cuba curriculum is more practical and is more covered in school because it is more fit with teacher's educational background. Third) Teacher training education in Cuba is more professional approach to teacher training. In addition, it has a clear vision of a high-quality, successful teacher education program. Fourth) Cuba education system is organized around high-quality instruction to make sure that required curriculum is being implemented. Therefore, Cuba education has an evaluation system that helps them to improve their teachers and curriculum.

Recently, Cuba got a new secondary education policy that has some negative effect on the quality of teaching because teachers in Cuba used to teach in their special subject but now "teachers are expected to teach all subjects with the exception of foreign language, computing and arts" (Breidlid, 2013). Likewise, the effect of tourism and oil industry has brought different social class with different economic ability, which expects to have private schools. Therefore, Cuban educational system is facing some challenges but the important point about Cuba educational system is that students do not experience an alien educational discourse like what happened in South Africa. In addition, the main reason Cuba was used as an example was to show how the global south countries can have other alternatives in front of them. They should trust their resources such as their people, culture and environment in order to have development.

#### 5. Conclusion

The article tried to introduce some of the most complicated concepts in the world today. Concepts like education, development, western hegemonic discourses, Indigenous knowledge were discussed. Firstly, the article wanted to show the background of global architecture of education is. Secondly, how global architecture of education effected Africa and South Africa in particular. Thirdly, to show how the World Bank as a global organization is active in transferring educational system from west to global south. Even though the global architecture of education affects educational systems, it is not white and black. In other word, organizations like World Bank and UNESCO have a lot of positive effect to educational development as well. Lastly, the article tried to bring Cuba in as an example that can do better with their educational system even though it is not connected to western discourses in education. Other countries may learn from this.

With all the discussion around concepts about how educational systems should be in the 21<sup>st</sup>- century, I hope educational

policy-makers can agree with what Freire suggests that: “every human being is a repository of knowledge, not an “empty vessel” devoid of knowledge, and he has valuable experiential knowledge to be applied in problem-posing dialogues” (sited in Breidlid, 2013).

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## STUDY OF THE ANTIOXIDANT ACTIVITY AND ANTIBACTERIAL EFFECT OF ESSENTIAL OIL AT DIFFERENT GROWTH STAGES OF PLANT HAUSSKNECHTIA ELYMAITICA BOISS AS ENDEMIC SPICES OF IRAN.

<sup>a\*</sup>ZARINI M, <sup>b</sup>MAJD A, <sup>c</sup>TAJADOD G, <sup>d</sup>MEHRABIAN S, <sup>e</sup>JAFARI S

<sup>a</sup>Department of biology, Faculty of Biological Science, North Tehran Branch of Islamic Azad University, Tehran, Iran

<sup>b</sup>Department of biology, Faculty of Biological Science, North Tehran Branch of Islamic Azad University, Tehran, Iran

<sup>c</sup>Department of biology, Faculty of Biological Science, North Tehran Branch of Islamic Azad University, Tehran, Iran

<sup>d</sup>Department of biology, Faculty of Biological Science, North Tehran Branch of Islamic Azad University, Tehran, Iran

<sup>e</sup>Department of biology, Faculty of Biological Science, North Tehran Branch of Islamic Azad University, Tehran, Iran

Email: <sup>a</sup>zarini.mehdi@yahoo.com, <sup>b</sup>Majd.a.mn@gmail.com, <sup>c</sup>Tajadod.g.tg@gmail.com, <sup>d</sup>mehrabian.s.ms@gmail.com, <sup>e</sup>jafari.s.phd@gmail.com

**Abstract.** The vegetative (stem and leaves) and generative (flowers and fruits) parts of *H. elymaitica* (Apiaceae), which is endemic of Iran, were collected during the growth stages from Takhtan Mountain area around Dehloran (Ilam province) and The essential oil was obtained by using hydrodistillation method. The antioxidant potential of the samples was evaluated using free radical scavenging method 2, 2-diphenyl-1-picrylhydrazyl (DPPH) method in comparison with Ascorbic acid. The results showed that inhibition percentage of different parts of essential oil increased with increasing concentration similar to ascorbic acid also there was a considerable difference between antioxidant activities in 200 and 400 p.p.m concentrations their considerable difference is appeared.

**Keywords:** *Hausknechtia elymaitica*, antioxidant activity, antibacterial activity, essential oil

### 1 Introduction

Use of medicinal compounds with plant origin has been always considering by human. Medicines, which are largely used today to treat different types of diseases such as bacterial, viral, and fungal infections as well as different types of metabolic diseases and even cancer, have natural origin (Tchakam, et al., 2012). Free radicals are molecules with a single electron shell and are generated in organisms' body naturally, but when generation of these radicals is more than the normal level then substrates such as cell membranes, proteins and nucleic acids will be exposure to oxidation. In this case, degradation of macromolecules such as DNA and protein degradation occurs. Antioxidant compounds can neutralize free radicals and protect the body (Oke et al., 2009). According to the warnings of World Health Organization about indiscriminate use of antibiotics and serious concerns in relation with increased resistance against pathogenic microorganisms, many studies have been started in field of antibacterial materials affecting these resistant microorganisms (WHO 2011, Bhullar et al., 2012).

Antioxidant and antibacterial activity of plant essential oil has been studying for several years but the highest concentration on this issue has occurred during past 30 years. In this period, plants with traditional use have been studied specially in China and USA. Whereas, reports related to endemic plants in Iran have few (Suffredini, 2006).

Umbelliferae (Apiaceae) family is one of the largest plant families with about 300 genera and 3000 aromatic herbal species. There are various medicinal species among plants of Umbelliferae and many of these plants are used in traditional medicine; also, leaves and fruit of these plants are used as food (Zargari, 1980). *Hausknechtia* or white celery, which has perennial specie in Iran called *H. elymaitica*, mostly grows in mountain and oak forests of Zagros west of Iran. This endemic plant grows in Iran not seen in any other places in world (Mozaffarian, 1994). This unique specie is a perennial plant with alternate leaves, numerous cuts and divisions ending

to sheathed petioles that covers the stem in the junction place. This plant has an erect, smooth and glabrous and mostly has one-three stems beside each other in one base of plant and these stems might be with or without branches with height of 3 meter. White celery grows in west of Iran in some provinces and local people use the leaves and different parts of this plant as food spice traditionally (Mozaffarian, 1996, Mozaffarian, 1987). This plant is named as a medicine for diabetes, blood pressure, anti-stress and anti-tension in many of scientific texts (Ghorbani, 2013). Three important medicinal compounds are discovered from photochemical examinations that these compounds are two Phenylpropanoids called Trans- methyl eugenol and Trans-Asaron as well as a derivative of benzoic acid called Asarunic acid. Habibi et al., (2012) studied chemical compositions of aerial part of this plant using Column chromatography and GC/MS methods, isolated, and identified 12 different parts of the essential oil of this plant such as  $\alpha$  - zingiberene,  $\beta$  bisabolene, sesquiphellandrene, and alpha-phellandrene (Mohammadi et al., 2012). Other studies were conducted on the essential oil of *H. elymaitica* fruit and 10 types of chemical materials were isolated and purified that amount of the  $\beta$  bisabolene was more than Trans Asaron and lavandulyl acetate (Mehregan and Ghannadi, 2013). According to the presence of various photochemical materials in *H. elymaitica* plant, there was not any reports in scientific references about the evaluation of antioxidant and antibacterial activities in this plant. Considering the mentioned properties, the purpose of this study is to examine antioxidant and antibacterial potential and activity of essential oil in vegetative (leaf and stem) and generative (flower and fruit) parts.

### 2 Materials and Methods

#### 2.1 Plant collection and preparation

During spring and summer 2015, we went to growth location of examined plant in mountain area of Takhtan in Dehloran (Ilam Province), Iran and removed vegetative and generative organs of plant. We dried and mixed these organs at the environment temperature in the shade and placed them in closed containers far from direct sunlight until the essence extraction.

#### 2.2 Producing essential oil

The essential oil of mixed and dried herbal materials of *H. elymaitica* was extracted using hydro distillation method and Clevenger apparatus for 4 hours, material was put into a dark closed container at the 4°C temperature until the use time after filtering and dewatering using Sodium Sulfur.

#### 2.3 Measuring antioxidant properties using DPPH method

In this test, the ability to free hydrogen atom or electron by different essential oils or compositions is measured through discoloring de-purple solution 2-diphenyl-1-picrylhydrazyl in methanol. In this method, DPPH material (Sigma-Aldrich) as an indicator for stable radical combination. In this regard, 50 microliter of different concentrations of essential oil of control sample and Acid Ascorbic added to 5 ml 0.044% solution of DPPH in methanol. After 30 minutes remaining in oven at room temperature, the optical absorbance of samples was read at 517-nanometer wavelength against blank disc. Percentage of scavenging of free radicals in DPPH was calculated using the following formula (Burits and Bucar, 2000):

$$\% = (A_{\text{blank}} - A_{\text{sample}} / A_{\text{blank}}) \times 100$$

Where,  $A_{\text{blank}}$  indicates optical absorbance of negative control without essential oil and  $A_{\text{sample}}$  indicates optical absorbance of different concentrations of essential oil.

## 2.4 Antibacterial activity

### Bacterial strains:

The bacteria used in this study were given by Biotechnology Research Center in University of Baqiyatallah. General list of these bacteria with their symbol codes are described in table 1.

Table 1. Standard bacteria used in antibacterial effect test

Bacteria name	Symbol	Properties
Staphylococcus aureus	ATCC 25923	Gram-positive cocci
Staphylococcus epidermidis	ATCC 14990	Gram-positive cocci
Pseudomonas aeruginosa	85237 ATCC	Gram-negative bacilli
Escherichia coli	ATCC 25922	Gram-negative bacilli

Test method of Antibacterial effect was chosen based on Disc Diffusion Method. To prepare bacteria suspension, one-night culture of microorganism with concentration equal to 0.5 McFarland standard was used. Then, bacteria sample was cultured on the Mueller-Hinton agar. To examine antibacterial effects, 5 concentrations including 70mg/ml, 80mg/ml, 90mg/ml, 100mg/ml, and 110mg/ml prepared from vegetative (leaves and stem) and generative (flower and fruit) parts in 5% DMSO solvent (Dimethylsulfoxide) and then sterilized paper discs were added to plate contained bacteria and each of them was inoculated with 15 $\mu$ l of mentioned dilutions. All of examinations were conducted as three parallel replications. Gentamicin was used to compare antibacterial effects of essential oil and Dimethylsulfoxide (DMSO) was used as negative control. At the end, diameter of inhibition zone was measured after plates heating for 24 hours at 37°C temperature and 3 repetitions were determined averagely (Elgayyar et al., 2001).

To determine the Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) of the examined essential oils, serial dilution method was used. To determine MIC, serial dilutions 70, 80, 90, 100, 100, 120, and 200mg/ml were prepared in NB environment (Wiegand et al., 2008). After preparing serial dilutions, 20 $\mu$ l of 0.5 McFarland bacteria suspension was added to positive control (positive environment of essential oil). Finally, the inoculated serials were incubated for 24 hours at 37°C temperature. The lowest dilution of

essential oil without any impurity considered as MIC. To determine MBC, some sample of serials without any growth was cultured on Mueller-Hilton agar medium. The inoculated mediums were placed at 37°C temperature for 24 hours. After incubation, the lowest concentration of essential oil without any growth considered as MBC. Nutrient Broth medium with bacteria-less essential oil and medium without bacteria-containing essential oil were used as positive and negative controls, respectively.

## 3 Results

### 3.1 Examining antioxidant properties using DPPH method

In figure 1, scavenging level of DPPH radical in concentrations 25, 50, 75, 100, 200, and 400-m.p.p essential oil and Acid Ascorbic are presented. Results indicate that inhibitory percentage of essential oil in vegetative and generative parts has been increased with increasing concentration amount and this effect has been more on generative organs (flower and fruit) than leaves and stem; also, in low concentrations, inhibitory effect of generative part is more than Acid Ascorbic and the difference is more significant in concentrations 200-400 m.p.p of essential oil in flower and fruit compared to low concentrations. The most percent of free radicals scavenging was recorded to 80/75% in concentration of 400 mg/ml. Results obtained from free radical scavenging by different concentrations are indicated in table 2.

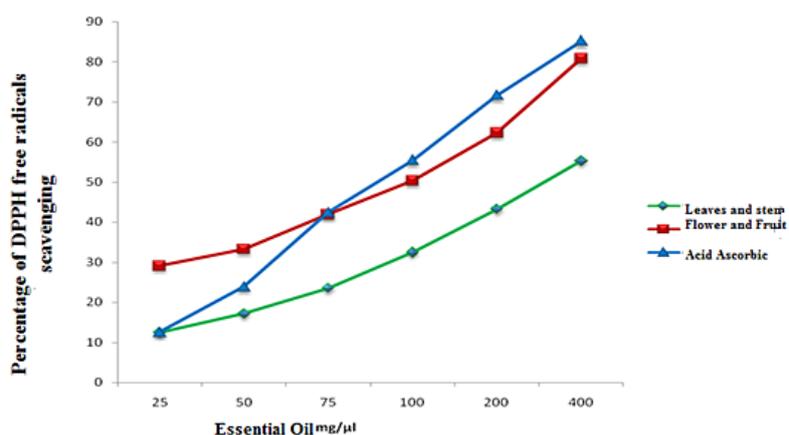


Figure 1. Comparing DPPH radical scavenging by different concentrations of essential oil in vegetative and generative parts with Acid Ascorbic antioxidant in 517nm

Table 2. Comparison of DPPH radical scavenging by different concentrations of essential oil in vegetative and generative parts with Acid Ascorbic antioxidant in 517nm

Examined part of plant	Essential oil concentrations					
	25 mg/ml	50 mg/ml	75 mg/ml	100 mg/ml	200 mg/ml	400 mg/ml
percentage of free radical scavenging in generative part (flower and fruit)	29.12	33.25	41.88	50.33	62.21	80.75
percentage of free radical scavenging in vegetative part (leaves and stem)	12.45	17.12	23.52	32.45	43.23	55.24

percentage of free radical scavenging of Acid Ascorbic	12.56	23.88	42.35	55.42	71.59	85.12
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Diameter of inhibition zones in disk diffusion method (table 3) for essential oil of generative part of *Haussknechtia elymaitica* indicated that *Staphylococcus epidermidis* was affected in 110mg/ml concentration with average diameter of inhibition zone equal to 25/32±2. In similar conditions, *Staphylococcus aureus*, *Escherichia coli*, and *Pseudomonas aeruginosa* indicated

average diameter of inhibition zone to 23/90±1, 18/33±2, and 16/42±1, respectively (table 3).

As can be seen in table 3, the most effect of essential oil of different parts of *H. elymaitica* was on *Staphylococcus epidermidis* and the lowest effect was on *Pseudomonas aeruginosa*.

Table 3. Mean± Standard deviation of diameter of inhibition zone (mm) obtained from different concentrations of essential oil in vegetative (leaves and stem) and generative (flower and fruit) parts for studied bacteria

Bacteria type	Examined part	Essential oil concentration					Gentamicin 10mg/ml
		70 mg/ml	80 mg/ml	90 mg/ml	100 mg/ml	100 mg/ml	
<i>Staphylococcus aureus</i>	A	17.82±1	19.32±2	20.10±1	21.72±3	23.90±1	25.90
	B	14.24±2	16.34±1	17.18±1	18.92±1	20.10±2	
<i>Staphylococcus epidermidis</i>	A	19.18±1	20.87±2	21.72±2	23.36±1	25.32±2	27.84
	B	17.10±1	18.73±2	19.54±2	20.18±1	22.75±1	
<i>Pseudomonas aeruginosa</i>	A	10.31±2	11.52±1	13.00±1	14.38±2	16.42±1	20.54
	B	8.52±1	10.83±2	12.38±1	13.82±2	15.22±1	
<i>Escherichia coli</i>	A	12.90±2	14.00±1	15.10±1	16.16±1	18.33±2	22.62
	B	10.20±1	11.84±1	13.10±1	14.25±2	16.14±1	

A: Essential oil of generative part (flower and fruit)

B: Essential oil of vegetative part (leaves and stem)

Also, results obtained from diameter of inhibition zone show that growth inhibitory effect of examined parts on positive-gram bacteria has been more than this effect on negative-gram bacteria. Also, with increase in concentration of essential oil the diameter of inhibition zone will increase.

Results obtained from MIC and MBC indicated that Minimum Inhibitory Concentration and Minimum Bactericidal Concentration of essential oil of flower and fruit is more than that of essential oil of leaves and stem. The MIC equal to 70mg/ml was

observed in essential oil of generative parts of *Staphylococcus epidermidis* bacteria that this concentration was equal to 90mg/ml in essential oil of vegetative parts. Results related to MIC and MBC (table 4) indicate that *Pseudomonas aeruginosa* has more resistance against the essential oils extracted from *H. elymaitica* plant compared to other studied strains; MIC and MBC of bacteria in essential oil of flower and fruit indicated concentrations 100 and 120mg/ml, respectively. In essential oil of leaves and stem, concentration for MIC was equal to 120mg/ml and for MBC to 200mg/ml.

Table 4. Results of MIC and MBC of essential oil in vegetative (leaves and stem) and generative (flower and fruit) parts for studied bacteria

Essential oil	Bacteria	MIC µg/mm	MBC µg/mm
generative part (flower and fruit)	<i>Staphylococcus aureus</i>	80	100
	<i>Staphylococcus epidermidis</i>	70	100
	<i>Pseudomonas aeruginosa</i>	100	120
	<i>Escherichia coli</i>	90	110
vegetative part (leaves and stem)	<i>Staphylococcus aureus</i>	100	120
	<i>Staphylococcus epidermidis</i>	90	110
	<i>Pseudomonas aeruginosa</i>	120	200
	<i>Escherichia coli</i>	100	120

#### 4 Discussion

Results obtained from this research indicated that essential oil of both vegetative (leaves and stem) and generative (flower and fruit) contains compositions with antibacterial and antioxidant properties but these properties are different in these parts. Since there has not been any reports of antioxidant or antibacterial effects of essential oil of plant *H. elymaitica*, the results obtained from other genera of this family (Umbelliferae (Apiaceae)) used in this research. Examining of diameter of inhibition zone, it was found that essential oil of flower and fruit parts had more inhibitory effect on growth of tested microorganisms although inhibition zone was observed in growth of all used microorganisms; however, some bacteria such as *Staphylococcus epidermidis* and *Staphylococcus aureus* have more sensitivity toward herbal essential oil compared to negative-gram bacteria and negative-gram bacteria of *Pseudomonas aeruginosa* is more resistant. These results are matched with results obtained from study conducted by Pas et al., (2012) on antibacterial effect and antioxidant activity of essential oil of *Echinophora cinerea* Boiss plant from Umbelliferae family. In the mentioned study, *Staphylococcus aureus* was reported as sensitive bacteria and *Pseudomonas aeruginosa* as resistant bacteria. Essential oil of *Echinophora cinerea* Boiss indicated a considerable effect on *Staphylococcus aureus* and had inhibitory effect in dilution of MIC=0.16mg/ml and bactericidal effect in dilution of MBC=0.63 and these values were equal to MIC=87mg/ml and MBC=175mg/ml for resistant *Pseudomonas aeruginosa* (Pas et al., 2012). In other studies, antibacterial effect of *Dorema ammoniacum* specie from Umbelliferae family, which are similar to *H. elymaitica* specie in terms of flower and fruit, on bacteria *epidermidis*, *S. aureus*, and *E.coli* was equal to 22, 17, and 14mm, respectively (Yousefzadi et al., 2011). This similar effect on bacteria might be because of common chemical compositions such as  $\alpha$ -phellandrene and beta-bisabolene that effect of their antioxidant activity has been studied (Yousefzadi et al., 2011). Study on essential oil of genera of *Ferula* specie (Iranian *Ferula* and desert *Ferula*) indicated the most sensitivity among positive-gram bacteria *Bacillus subtilis* and *Pseudomonas epidermis* and negative-gram bacteria *E.coli* and lowest effect on *Pseudomonas aeruginosa*.

Results obtained from MIC, MBC were matched with findings of disc diffusion method, and it was found that essential oil of different parts had antibacterial effect on majority of bacteria. A study was conducted on antibacterial activity of *Cuminum cyminum* and *Alcea Digitata L.* and the obtained findings from MIC and MBC indicated the most sensitivity of bacteria *S. aureus*; negative-gram bacteria of *Escherichia coli* and *Salmonella typhimurium* were the most resistant bacteria (Zareii, et al., 2014). The difference between inhibitory levels of essential oils in different bacteria can be attributed to different mechanisms of microorganisms against factors limiting growth. The reason for sensitivity of positive-gram bacteria toward oil essentials might be raised from monolayer cell wall, while negative-gram bacteria have multilayer cell wall. In other words, negative-gram bacteria have an outer membrane and a periplasmic space, whereas positive-gram bacteria have none of them. Outer membrane of negative-gram bacteria is recognized as a barrier for penetration of antibiotic molecules. On the other hand, this membrane prevent from penetration of hydrophyte into the bacteria. Periplasmic space contains some enzymes that can decompose the external molecules entered from outer space.

Conducted examinations indicate that essential oil of flower and fruit has a better antibacterial and this point implies the presence of more and better antibacterial compositions in these parts. The mention point is matched with the results obtained from the study conducted by Mehregan and Ghanadi (2013) on chemical compositions of *H. elymaitica* plant. Conducted studies on white celery show that chemical compositions obtained from different parts of this plant has a good potential to treat some diseases such as epilepsy, hypertension (lowering cholesterol), diabetes, gallstones, ulcers and stress (Habibi et al., 2013). Also. These materials can be used in chocolate industry, the production of

pesticides and cosmetics. However, pharmacological effects of scavenging of free radicals DPPH in essential oil of different parts of *Haussknechtia elymaitica* Boiss plant was determined and it was seen that inhibition percentage of essential oil of different vegetative and generative parts increases with an increase in concentration. However, radicals scavenging activity is one of distinguished mechanisms during activity and creation of synergistic effects. This activity in essential oils of flower and fruit parts was more than leaves and stem and this difference might be related to more percent of  $\alpha$ -phellandrene and lavandulyl acetate compositions and Trans Arason in these parts that their antioxidant effects have been studied and approved in different plants (Dehghani, 2013).

#### 5 Conclusion

Results of this study indicated that different parts of *Haussknechtia elymaitica* Boiss contains compositions with antioxidant and antibacterial properties and these effects in generative step (production of flower and fruit) is more than vegetative step. Therefore, in accordance with created pharmaceutical resistance and results obtained from study, it is recommended to isolate active pharmaceutical ingredients of studied plant and use them as a suitable and low-cost substituent for antibiotic and antioxidant medicines.

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## THE EFFECTS OF EMPLOYING TALENT STAFF FOR MANAGERIAL POSTS ON PERFORMANCE OF HUMAN RESOURCES (CASE STUDY: ENDOWMENT AND CHARITY AFFAIRS ORGANIZATION)

<sup>a</sup>AMIR HOSSEIN AMIRKHANI, <sup>b</sup>SEYED HASSAN JANATI, <sup>c</sup>MOHAMMAD POORESMAILI RAVARY, <sup>d</sup>BEHZAD BAYRAMPOUR

<sup>a</sup> Associate Professor, Payame Nour University (PNU), Tehran, Iran

<sup>b</sup> Master of Executive Management, Varamin Branch, Payame Nour University (PNU), po.Box 19395-3697 Tehran, Iran

<sup>c</sup> Master of governmental management, West Tehran Branch, Payame Nour University (PNU), Iran

<sup>d</sup> Master of governmental management, Tehran Branch, Payame Nour University (PNU), Iran

Email: <sup>a</sup>amir.h.amikabiri2@gmail.com, <sup>b</sup>janati54@yahoo.com, <sup>c</sup>mohammad.pooresmail.r123@gmail.com, <sup>d</sup>behzad.bayrampour23@gmail.com

**Abstract:** The aim of this study was to evaluate the effects of employing talent staff for managerial posts on performance of human resources in Endowment and Charity Affairs Organization. This research in term of aims is applied and in term of method as descriptive - survey. The research population consists of all managers, supervisors and staff which population community was 500s staffs. Cochran formula is used to determine the sample size, the sample size with respect to 500 staff as population community was 217 staffs. That according to its sample size of 217 staffs was studied. In this study simple random sampling was used. The results show that there is a significant relationship between employing talent staff for managerial posts on performance of human resources in Endowment and Charity Affairs Organization.

**Keywords:** employing talent staff, organizational factors, personal factors, process factors and performance factors

### 1. Introduction

Talent management has been considered as a complete set of process to identify, development, maintenance and development of talented employees needed for the successful implementation of the organization's activities and the organization will ensure that the right people with the right skills, job in the appropriate position in order to achieve the expected targets are located. Due to the novelty of talent management in large organizations in Iran, this study has a positive effect on the human resources managers. Talent management in recent years, much research attention because of its ability to create and sustain competitive advantage has attracted companies (Ingram et al., 2016). The planned use of talent for leadership positions that allow the organization to identify knowledge gaps and staff develop a way to progress their career aspirations in a secure environment, positive and comfortable express (Christy, 2005). On the other hand increasing competition, privatization and outsourcing of Government policy, in this regard, organizations and institutions in the country and more detailed, organizations need leader's capable endowments, innovation and are committed to continue the growth and development organization. With regard to the subjects mentioned and given the critical role and talent staffs in organizations, it was achieved among staff to consider the charity's endowment. Basically, this study seeks to susceptible actors in the deployment of staffs for managerial positions in the Endowment and Charity Affairs Organization.

### 2. Literature review

The definition of employing talent staff:

Term of employing talent staff, for the whole of range of planning future capital requirements for staff will be used. In general, refers to talent management, talent creation of internal and external resources, develop these resources in a central location and emphasis on job motivation, organizational commitment and their behavior, which eventually lead to

improved organizational performance (Ingram et al., 2016). Talent management, human resource planning process includes a process of identifying, selecting, maintain and develop human resources and talented staff in the organization (Tajodin et al., 2015). In fact, talent management, include keeping talented people in the organization. Talent management, implementation of the approved activities and finding relevant information relating to attract, identify, recruit, development, motivation, promotion and retention of those who have strong potential for success within the organization (Balayn and Sparrow, 2009). Institute CIPD, talent sophisticated combination of skills, knowledge, cognitive abilities and potential and knows and talent management to identify and focus on high-potential defines a part of the human resources (Guy et al., 2009).

### 2.1 Talent management components

Talent management strategy includes factors such as performance management, employee education, rewards and recognition, the atmosphere and the culture of openness and communication. The first component of talent management strategy (performance management) process in which managers seek to improve the quality of the performance of teams and individuals, access to current and future goals and objectives of the organization possible. One of the important aspects of this process, the relationship between employees, supervisors, so that this relationship is different context to fully understands the objectives and cognition provides organizational goals. The second component of the talent management strategy (education workers), for updating knowledge, skills and capability of employees is considered. Previous studies have demonstrated that humans retain talented people in the organization to drastically reduce costs. One way to retain employees is creating opportunities for them to learn new skills and develop their abilities. The third component of talent management is rewards and recognition. Organizations through strategies, policies and processes, determine the value of your employees through this legislation, people who have worked to achieve organizational goals to identify and encourage (Armstrong, 2010). The atmosphere and culture of openness is the fourth component of the talent management strategy. Relatively stable intrinsic properties and collective feeling and understanding of those features, optional features define organizational climate (Alikhani, 2009). The last component of talent management is the communication, the exchange of information and ideas in the organization (Armstrong, 2010).

### 2.2 Factors affecting the employing of talent staff

A) Process factors: The process factors include:

- 1) Assessing the needs of future tasks: a strategic plan, current and future priorities, which, by creating a deployment plan is likely, identified (Ibarra, 2005).
- 2) Identify important posts and employees with high potential: important positions are those necessary to achieve the business results for the organization, department, section, business unit or team, are required (ibid.).
- 3) Identify competencies: competencies should be integrated within an organization's performance management system.

Rating identifies competencies as part of the deployment of talent, the capabilities that are necessary for the workplace of today and tomorrow. Examples of qualifications: mentoring, decision-making, initiative and tenacity are conflict management.

4) Complete analysis of gap: leading a gap analysis to determine whether the size of the qualifications for each post (ibid.).

5) Select educational and development activities: a variety of resources available to individuals and groups, to close the gap and building upon the merits of the powerful, who are employees (such as job assignments, job rotation, job enrichment, etc.). This step of the application process for the selection and design talent development strategies has been created.

6) Training Management: Managers should focus on education, on strengthening the skills and knowledge to develop talent development need to be involved. Such as: identification of key replacement needs and people with high potential; identify current and future activities and business results (Ibarra, 2005).

#### B) Organizational factors:

Environment of organizations are considerably effective in talent staff deployment process. Strongest impact on the planned deployment of talent staff is historical records. Most likely use of talent, previous approaches take shape. Suppose that the deployment of talent on process properties listed by other environmental factors will influence the chart above. "Planning horizon" as much as long-term goals of the immediate challenges are mastered, refers to: longer time, permit the transfer position and subsequently focus more on the day-prone deployment. Then, succession planning, "perceptions of domestic labor" will affect, so whether internal coalition intended to remove external sources, or if the search for external sources to be taken seriously, to what extent has it been discussed. "Political space" is the relative weight given to objectively determine the suitability of mutual relations. Finally, the "openness" in the enterprise space, to the extent that the process of implementation talent to be effective communication within the organization (Garman, 2004).

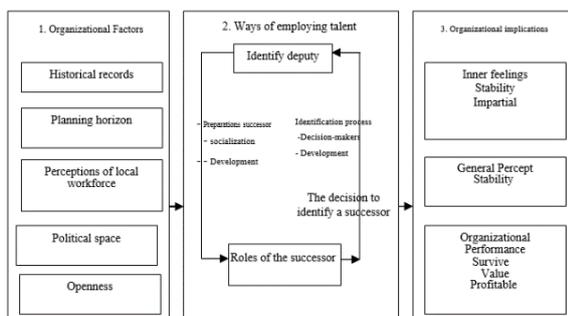


Figure 1. Planning process model of deployment of talent staff (Succession) (Garman and Glawe, 2004)

#### C) Individual factors: individual factors including;

Level education and expertise, knowledge relating to jobs, work experience, talent is work-related. Education indicators expertise include sufficient expertise and powers in the field of job tenure, having adequate skills in the field of job tenure, work experience, work experience and training is required (Rezaeian, 2005).

Job autonomy: having full autonomy and independence in monitoring devices under its oversight. Include indicators related to job autonomy; financial decisions by the employees affected by the absence of influential people, allowing employees within the laws and regulations (ibid.).

Organizational support: support or assistance that employees need to do their jobs successfully,

Such as insufficient funds, facilities and equipment to do the job right, the necessary support from other organizational units.

Indicators of organizational support including the provision of office facilities conference space suitable working environment (ibid.).

Motivation or desire: to motivate employees to do the work is concerned, motivated, successful completion of the work that employees have on hand. Employees are more inclined to do business successfully afford to be motivational for them. Job motivation factors are: the interest of employees to their jobs, cash and non-cash compensation received from organizations and social status and position in the government and society (same source).

### 3. Organizational Performance

To understand corporate performance should first understand the concept of performance. Performance; to do the job tasks that an employee completes refers and shows how a worker accomplishes the requirements of a job (Byars and Rue, 2008). Organizational performance, to the missions, tasks and organizational activities and results of applied to them. Another definition, organizational performance is to achieve organizational goals and social or go beyond them and the organization's responsibilities (Haghighi et al., 2010). In measuring performance, there are two main approaches: objective and subjective, and both approaches have their own advantages and disadvantages. Objective measures, more real, but the scope of coverage is limited to financial data and other organizational dimensions do not explain. On the other hand, subjective scales, less realistic, but they provide rich descriptions of organizational effectiveness. These measures allow a wide range of organizations in different industries are analyzed (Allen et al., 2008).

#### 3.1 Performance Evaluation

Practice, often with the "efforts", which refers to the energy spent equated. Performance is measured based on the results of operations. For example, a student may apply great effort in preparing for a test, but the little score. In this case, much work has been done, but the performance was low. According to Byers Vero (2008) performance can be in a position as a result of interaction between: a) efforts, b) abilities and c) perceptions of the role will be considered. "Effort", that the excitement stems referring to energy expenditure (physical or mental) that a person spends its duty. "Enablers", personal characteristics and are used in performing the job 'perceptions of the role of "the paths people believe should guide their efforts in order to do their jobs, and so on.

Noe et al., (2008) performance due to personal characteristics, skills and know like it. As shown in the figure below, these characteristics are objective results through employee behavior. In fact, employees only if the knowledge, skills, abilities and other characteristics necessary to perform a job they can show their behavior. Other components of the new model and colleagues are "institutional strategies". Often, the relationship between the management and performance strategies and goals of the organization ignored. The top model of "position limits" is mentioned, plays an important role in practice. As previously mentioned, people may do proper behavior, but do not gain good results. Therefore, employees should have specific features for a set of behaviors and achieve some results and to achieve competitive advantages, characteristics, behavior and results should be tied to organizational strategies.

Sayadi, et al (2012) carried out a study entitled "The relationship between talent management and job satisfaction" the aim of this study was to determine the relationship between talent management and job satisfaction of employees in the headquarters of the Social Security Fund. The method of this research is descriptive and correlational survey method was used. Our findings that there is a meaningful relationship between talent management and job satisfaction have been

approved. Tahmasebi et al (2012) has identified the most effective factors to attract and retain scientific talent at universities. This research is an applied and descriptive study was conducted at Tehran University. The sampling is simple random sampling and data collection tools. The collected data were analyzed with SPSS software. The results show that the cause of climate research is most effective in attracting talent at Tehran University.

Taleghani et al. (2013) determined the effectiveness of their talent management strategies on the performance of faculty members. This study is applied and in terms of style, descriptive of correlation. A total of 213 people were chosen randomly sorted, for example. To gather the views of respondents, the questionnaire is used. Research hypotheses were tested using structural equation modeling. The results indicate that strategy, talent management, positive and significant effect on the performance of its faculty members.

Nopasand Asl et al., (2014) examined the relationship between talent management processes and organizational performance. The aim of this study is applied and descriptive correlational. The population included all employees of Gilan Ports and Maritime Organization via Morgan table and using stratified random sampling method, the number of 162 people was chosen as samples. To collect data, a questionnaire was used. For data analysis, Pearson's correlation coefficient bivariate and multivariate regression was used. The results showed that there is a significant relationship between the activities related to talent management and quality of service and innovation in services as well as attracting top talent to the greatest positive impact on increasing the power of innovation in the organization.

Ghosi et al., (2015) examines the role and relationship between talent management in maintaining human resources potential in the National Oil Products Distribution Company in Sari. The research method is descriptive - survey and stratified random sampling method used and a questionnaire designed to measure the impact of talent management and the sample was composed of 95 employees and officials have been distributed. For the purpose of data analysis software SPSS, descriptive and inferential statistics and t-test was used. The results showed that the four talent management outcomes that are not abandoning talented people from the organization, job security and stability, talented people, create an empty treasury, talent and stay ahead of key positions, respectively, of the results of talent management in the organization. Bethke et al., (2010) in a study entitled "Effective talent management strategies in companies in Switzerland" show confidence and motivation for higher performance, the results of applying the talent management strategy. Tajodin et al (2015) examined the impact of talent management in Malaysia are banking on the quality of work life. The results indicate the potential impact on loyalty and performance management of employees in Malaysia bank. Bymond et al (2016) in their study are to evaluate the talent management in emerging economies. Their research suggests that cultural and institutional differences in talent management by an affected area. The social relations influence talent management, decision-making and skills.

### 3.2 Conceptual model

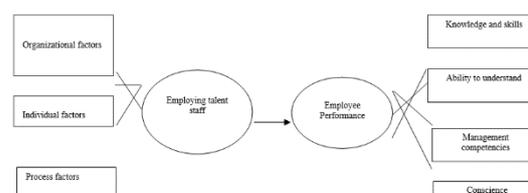


Figure 2: Research Conceptual Model (Wadadi, Zarefar, 2011)

## 4. Hypotheses

### 4.1 The main hypothesis

1. There is a significant relationship between employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

### 4.2 Sub-hypotheses

1. There is a significant relationship between organizational factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

2. There is a significant relationship between individual factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

3. There is a significant relationship between process factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

## 5. Results

The study in term of aim is applied and in term of data collection method is descriptive and in term of type is correlational. After careful study to collect information relevant to the literature, indicators affecting the deployment of talent staff in managerial posts have been investigated. As well as to collect data from the survey (the effect of talent for managerial posts and staff performance) with 37 questions was used. The study population will comprise staff of Endowment and Charity Affairs Organization and simple random sampling was used. To analyze the data, application and software SPSS22 Smart PLS structural equation modeling was used. Also in this study to determine the reliability test, Cronbach's alpha was used.

The statistical distribution in terms of gender, marital status, age, education, work experience of respondents is as follows:

The table below the total number of respondents is 236 people who, in terms of gender, 75% (177) were men and 25% (59) were women. In terms of marriage, 53% (125) of the respondents were married and 47% (n = 111) are single. In terms of age, 13% (n = 30), 20 to 30 years, 40% (94 patients) from 30 to 40 years, 35% (83 patients) from 40 to 50 years and 12% (N = 29) were 50 years and higher. In terms of education level, 8% (20) of diplomas, 18% (n = 43) has an associate degree, 46% (108) bachelor and 25% (59) MA and 3% (n = 6) were PhD. In terms of work experience; 12.7% (n = 30) under 5 years, 17.8% (n = 42) 5-10, 19% (n = 45), 10-15 years, 17.8% (n = 42), 15-20 years, 23.8% (56) had 20-25 years (8.8%) of 21 over 25 years work experience.

Table 1. Demographic statistical distribution

Variable	Condition	Frequency	Percent
Gender	Man	177	75
	Woman	59	25
Marital status	Married	125	53
	Single	111	47
Age	20 to 30 years	30	13
	30 to 40 years	94	40
	40 to 50 years	83	35
	50 years and higher	29	12
Education	Diploma	20	8
	Associate Degree	43	18
	Bachelor	108	46
	MA	59	25
	PhD	6	3
Work experience	Under 5 years	30	12.7
	5 to 10 years	42	17.8
	10 to 15 years	45	19
	15 to 20 years	42	17.8
	20 to 25 years	56	23.8
	Over 25 years	21	8.9

Analysis of the models in structural equation modeling approach Partial Least Squares (PLS-SEM) in two main stages "model search" and then "hypothesis testing" is done.

Table 2. Convergent validity and reliability

Variables	The average variance extracted (AVE)	Combining reliability coefficient (CR); <b>CR &gt;0.7</b>	Cronbach's alpha reliability coefficient
Performance	<b>0.766</b>	<b>0.929</b>	<b>0.897</b>
Organizational factors	<b>0.725</b>	<b>0.955</b>	<b>0.946</b>
Process factors	<b>0.741</b>	<b>0.945</b>	<b>0.930</b>
Individual factors	<b>0.765</b>	<b>0.963</b>	<b>0.956</b>

As can be seen in all three criteria listed above model is very good.

Table 3. Correlation Matrix and check the validity via the method of Larkr Fornell (1981)

	Performance	Organizational factors	Process factors	Individual factors
Performance	<b>0.8752</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Organizational factors	<b>0.752</b>	<b>0.8514</b>	<b>0.000</b>	<b>0.000</b>
Process factors	<b>0.799</b>	<b>0.798</b>	<b>0.8608</b>	<b>0.000</b>
Individual factors	<b>0.787</b>	<b>0.787</b>	<b>0.799</b>	<b>0.8746</b>

This applies to all research structures and highlights the divergent validity is confirmed. Results obtained from the Smart PLS software in the above tables shows that the models measure of validity (convergent and divergent) and reliability (loadings, Cronbach's alpha reliability coefficient combination) is appropriate.

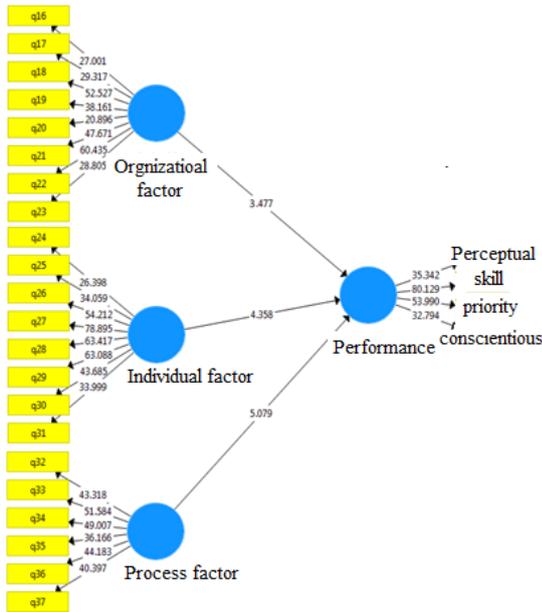


Figure 3. Model in significant numbers

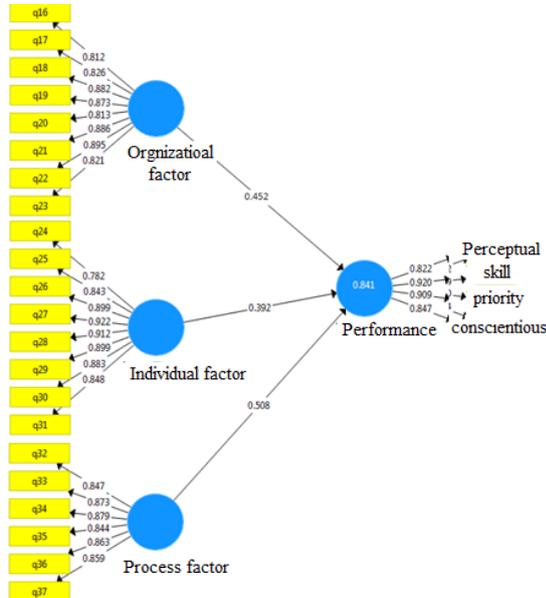


Figure 4. Model in standardized coefficients of factor load

Table 5 Path factor and significant number of sub-hypotheses

Hypothesis	Path coefficient	T-statistic	Test result
Employee Performance ← Organizational factors	0.452	3.477	Confirmed
Employee Performance ← Individual factors	0.392	4.358	Confirmed
Process factors ← Employee Performance	0.508	4.358	Confirmed

According to the statistic T (3.477) is higher than 1.96, and path coefficient (0.452) at 95 percent, there is significant relationship between organizational factors of employing the talent staff for managerial posts and performance of the staff in Endowment and Charity Affairs Organization.

According to the statistic T (4.358) is higher than 1.96, and path coefficient (0.392) at 95 percent, there is significant relationship between individual factors and employing the talent staff for

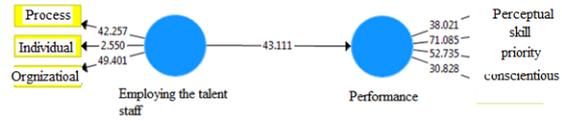


Figure 5. Model in significant numbers

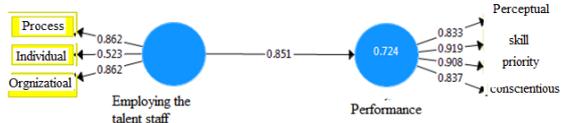


Figure 6. Models in standardized coefficients of factor loading

The main hypothesis: There is a significant relationship between employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

Table 4 Path factor and significant number of the main hypothesis

Test result	T-statistic	Path coefficient	Hypothesis
0.850	43.111	Confirmed	Employing the talent staff ← Employee Performance

According to the statistic T that is higher than 1.96, and path coefficient (0.850) at 95 percent, there is a significant relationship between employing the talent staff for managerial positions and the performance of the staff in Endowment and Charity Affairs Organization.

Sub-hypotheses:

managerial posts and performance of the staff in Endowment and Charity Affairs Organization

According to the statistic T (4.358) is higher than 1.96, and path coefficient (0.508) at 95 percent, there is significant relationship between process factor and employing the talent staff for managerial posts and performance of the staff in Endowment and Charity Affairs Organization.

## 6. Conclusion

The aim of this study is to "evaluate the effect of employing the talent staff for managerial positions and the performance of the staff in Endowment and Charity Affairs Organization. Data analysis using SPSS software and analysis necessary structural equation modeling software Smart PLS was based on the results of which are as follows:

Result of main hypothesis: There is a significant relationship between employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

According to the statistic T that is higher than 1.96, and path coefficient (0.850) at 95 percent, there is significant relationship between employing the talent staff for managerial positions and performance of the staff in Endowment and Charity Affairs Organization. In order to compare the results of this study can be said previous research, the results Ghosi et al., (2015) show that four issues of talent management they are not abandoning talented people from the organization, job security and stability, talented people, create an empty treasury, talent and stay ahead of key positions, respectively, of the results of talent management in the organization. The study also found there is significant relationship between employing the talent staff for managerial positions and performance of the staff in Endowment and Charity Affairs Organization. Results of Nopasand Asil et al., (2014) in a study entitled the relationship between talent management processes and organizational performance, showed that the activities related to talent management and there is a significant relationship between service quality and innovative services as well as measures to retain talent in the organization the most impact on the quality of rendered services and attracting top talent to the greatest positive impact on organizational innovation is increasing that is consistent with the results of the present study. The results Taleghani et al., (2013) that talent management strategies, positive has significant effect on the performance of faculty members that the results is consistent with the study findings.

Result of first sub-hypothesis: There is a significant relationship between organizational factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

Result of second sub-hypothesis: There is a significant relationship between individual factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

Result of third sub-hypothesis: There is a significant relationship between process factors of employing the talent staff for managerial posts on performance of the staff in Endowment and Charity Affairs Organization.

In this study, three of process, organizational and individual factors affecting employing the talent staff of organization were identified. Research findings of Sayadi et al., (2011) that there is a meaningful relationship between job satisfaction and talent management approved. Bymond et al., (2016) in their study shows that talent management affected by cultural and institutional differences in an area. As well as the social relations influence on talent management, decision-making and skills. Results of this study also show the relationship between talent management processes and organizational performance. Results of Tajodin et al (2015) reflects the impact of talent management and employee performance database is the loyalty. Also Bethke et al (2010) showed that the confidence and motivation for higher performance, the results of applying the talent management strategy is that these two studies are consistent results.

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# DETECTION OF HIGH IMPEDANCE FAULT LOCATION IN 20 KV UNDERGROUND DISTRIBUTION NETWORKS BY DISCRETE WAVELET TRANSFORMATION

<sup>a\*</sup>NASER RAHIMI, <sup>b</sup>SAMRAND SHARIFI

<sup>a</sup>Department of Electrical Engineering, Bonab Branch, Islamic Azad University, Bonab, Iran

<sup>b</sup>Department of Electrical Engineering, Boukan Branch, Islamic Azad University, Boukan, Iran

Email: <sup>a</sup>naser\_rahimi\_1478@yahoo.com, <sup>b</sup>sa.sh.mn@gmail.com

Abstract. Different designing approaches for detection of the high impedance fault occurrence location are investigated in this paper and the main goal of representing this research is to design a software system for 20 KV distribution networks in Iran. Machine learning for high impedance fault detection, finds the location of fault by feature extraction using discrete wavelet transform and applying partial and approximate coefficients and following that using the multi-class Support Vector Machine classification, provides the possibility of fault estimation. Results are indicative of appropriate performance of system and fault detection accuracy in training and testing states and some problems like uncertainties and relation with actual output, are removed.

Key words: high impedance fault, electrical protection, machine learning, wavelet transform, support vector machine.

## 1. Introduction

Ocurring high impedance faults in transmission and distribution systems can lead to irreparable faults and therefore it is purposed to first: the place of this occurrence be determined accurately and second: the possibility of predicting it be provided. However it is clear that location of high impedance fault is as a main challenge for current and voltage of network, the greatest impact of this issue and addressing it indicates itself in electrical protection (Akorede and Katende, 2010). Moreover, complexities such as voltage and current levels being heterogeneous and existence of side branches in distribution and transmission system have increased the location of high impedance fault. Ordinary fault which is known as high impedance fault in distribution network will be hardly detectable because of current intrinsic increase which gets form following resistance value limitation (Sedighzadeh et al. 2010). Now a day it is need to a powerful and strong system exist that detect this fault automatically. In most of cases, researchers in recent years were looking for designing this intelligent system, but they have not found convenient tool. It seems that the best tool for making intelligent in this field is artificial intelligence which can detect this fault automatically. But in order to automate the finding this fault, in a few researches the multiple factors such as time, accuracy, and confidence factor of fault occurrence location is considered. Therefore, the importance of research gets raised in terms of finding the fault quickly and accurately.

## 2. Related systems

Another approach is to apply detection based on electrical components of transmission line. These methods are based on analysis of voltages and currents of beginnings of feeders and are divided to four parts in a general class:

1. presented method in time domain (Kumar, 2014)
2. presented method in frequency domain (Michalik, 2006)
3. presented method in time-frequency domain (Samantaray and Dash, 2009)
4. intelligent combined methods (Bakar et al. 2014)

For systems which are grounded in some points, the angle and domain of unbalanced load current ( $I_0$ ) is not constant and fault current is variable too. Therefore, over current relays cannot be made sensitive. If a relay can sense only the fault current, its sensitivity increases. In suggested relays by attention to simplicity of measuring the unbalanced load current ( $I_0$ ), system current ( $I_N$ ), fault current ( $I_F$ ), based on equation (1) are calculated and leads to relay operation (Sedighi et al. 2005).

$$I_F = k_1 I_0 + k_2 I_N \quad (1)$$

In which  $I_0$  and  $I_N$  are unbalanced load current and neutral wire current respectively and  $k_1$  and  $k_2$  are constant. Considering this issue that these faults are impressible of other physical and environmental factors, a unique technique cannot effectively lead to detect all of them, therefore, some researchers for increasing the reliability of made devices use intelligent techniques or some techniques simultaneously to detect the high impedance (Milioudis et al. 2015).

Lai et al. in 2008 represented a model which includes two variable resistances with serried time and is controlled by EMTP/ATP models. Sharaf in 2004 defines the detection of high impedance fault method in time domain based on low frequencies (third and fifth circulation harmonics patterns). Marek Michalik et al. in 2006 provided a simple and effective method for detecting high impedance in distribution systems by wavelet transformation technique. Samantaray in 2012 introduced an intelligent method for detecting high impedance in power distribution feeders by advanced signal processing techniques such as time-time, time-frequency combined with neural networks.

## 3. Suggested controllers

Using feature extraction model and classifying by support vector machine as the main cores of intelligent systems are suggested that will be introduced in following.

Three phase voltage signal  
Location of fault detection  
Feature extraction  
Type of fault detection  
Classification  
Location Multiclass classification  
Making decision about fault

### 3.1 Feature extraction from signal with wavelet transformation

Discrete wavelet transformation is applied as an efficient transformation in feature extraction. After preprocessing of line signal by decomposing to wavelet coefficients, we transform it to different signals. Every stage of this process includes two digital filters and down-sampler with sampling factor of 2. In first filter,  $g$  is discrete base wavelet and intrinsically high-pass and  $h$  is mirror version of the same wavelets which are intrinsically low-pass.

The output of first order down-sampler for high-pass filters includes partial coefficients  $D1$  and approximate coefficients  $A1$  respectively. The first approximate equation is  $A1$  which is decomposed more than other coefficients. All of the wavelet transformation can be indicated in the form of an equation of low pass filter which satisfies the equation (2) conditions.

$$H(z)H(z^{-1}) + H(-z)H(-z^{-1}) = 1 \quad (2)$$

In which the  $H(z)$  is the  $z$  transformation function of filter  $h$  and the supplement of high pass filter can be indicated based on equation (3):

$$G(z) = zH(-z^{-1}) \quad (3)$$

A series of filters with increasing length (with index  $i$ ) can be shown with equation (4):

$$H_{i+1}(z) = H(z^{2^i})H_i(z) \quad i = 0, \dots, I - 1 \tag{4}$$

$$G_{i+1}(z) = G(z^{2^i})H_i(z)$$

In which the initial conditions  $H_0(z) = 1$  is considered and two-scale relationship in time domain can be expressed based on equation (5):

$$h_{i+1}(k) = [h]_{2^i} * h_i(k) \tag{5}$$

$$g_{i+1}(k) = [g]_{2^i} * h_i(k)$$

In which the  $[h]_{2^i}$  and  $[g]_{2^i}$  are indicator of up-sampling with a factor of 2 and on the other hand  $K$  is considered as discrete time of sampling. The base functions and normalized wavelets can be defined as following form:

$$\varphi_{i,l}(k) = 2^{i/2} h_i(k - 2^i l) \tag{6}$$

$$\psi_{i,l}(k) = 2^{i/2} g_i(k - 2^i l)$$

In which  $2^{i/2}$  is the normalized result of inner product.  $i$  and  $l$  are scale and translate parameters respectively. The decomposition of discrete wavelet transformation can be expressed by equation (7):

$$a_{(i)}(l) = x(k) * \varphi_{i,l}(k) \tag{7}$$

$$d_{(i)}(l) = x(k) * \psi_{i,l}(k)$$

In which  $a_{(i)}(l)$  and  $d_{(i)}(l)$  are approximate and partial coefficients with accuracy of  $i$  respectively. As result of these calculations, we will be capable of decomposition and rebuilding of signal practically.

### 3.2 Classification by support vector machines

In soft margin or support vector machine the equations (8) and (9) allow a little deviation from marginal hyper-planes by adding  $\zeta$  positive parameter.

$$(w \times x) - b \leq -1 + \zeta \tag{8}$$

$$(w \times x) - b \geq 1 + \zeta \tag{9}$$

It can be concluded that support vector machine is an optimum isolation method that output of it is obtained by Bayesian theory. In this set of equation  $b$  is the threshold parameter of optimum hyper-plane. The  $x_i$  or  $\alpha_i > 0$  training data are called support vectors and SVM finds the hyper-plane in which the distance

between support vectors and hyper-plane is maximum. After feature extraction, it is need to fault and its type be classified. To do this we only use the sum of approximate coefficients of first level of second round. This value is divided by sum of approximate coefficient obtained from following equation.

$$AR = \frac{a(HIF)}{a(Normal)} \tag{10}$$

Based on this value the high impedance fault is divided to one of the following four faults:

1. Single phase line to ground fault in which in average for Iran 20 KV voltage signal the AR of it for one of phases is less than 1 and for other two phases is more than 1.
2. Three phase fault in which the AR of all phases almost is equal.
3. Double phases fault (double line) in which the healthy phase like before has value (AR is almost equal to 1), while change in phase associated with fault have a less than 1 domain and is equal to other phases.

For calculating accurate AR we need to apply an appropriate threshold. This threshold is determined considering the classification output change.

### 4. Scientific results and simulation

The 20 KV electricity was used as intended overall network. For each type of fault five value of impedance including 60, 70, 80, 90, and 100 will be used for simulation in middle line of each section. Corresponding to occurrence of  $M$  cases of fault,  $2M$  feeders is used and finally, a 13 bus distribution network is considered as necessary standard bus in signal analyzing and processing stage. The MATLAB programming environment functions is used for simulation. Some of the values are considered as initial values which are shown in accordance with table 1. The location of fault occurrence is illustrated in figures 1, 2, and 3 for each of two states. The effect of fault signal breaking for one of the faults can be seen in figure 3 that in that fault location the effect of it on impedance is observable. Based on available outputs and considering initial labeling, we can predict the final operation of system in detecting types of quadruple fault. Mechanism of system is clear and is consist of two main phases of fault location detection and detecting type of fault.

Table 1: initializing of different states of high impedance fault occurrence

		Initial values for simulation					
		Fault index	Operation time	Transformation time	Transformation time based on fault index	Cycle number	Fault occurrencesection
resistance	80 ohm resistance	1	0.16 second	10 second	0.08 second	2	Section 12
	70 ohm resistance	1	0.21 second	14 second	0.1 second	2	Section 3
	85 ohm resistance	2	0.15 second	15 second	0.07 second	2	Section 8
	75 ohm resistance	2	0.13 second	13 second	0.06 second	2	Section 4

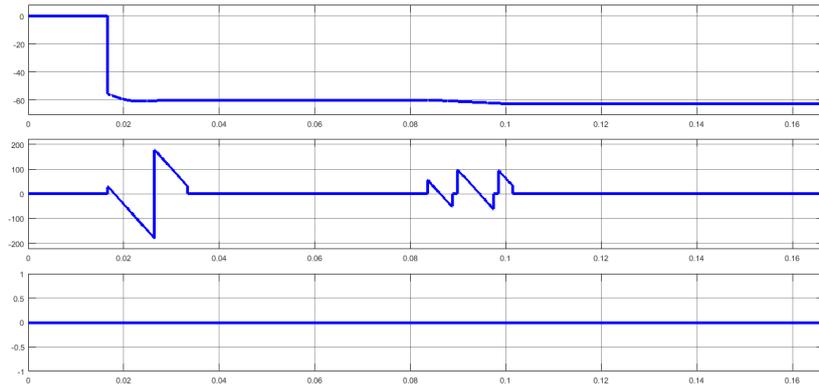


Figure 1: first fault occurrence location

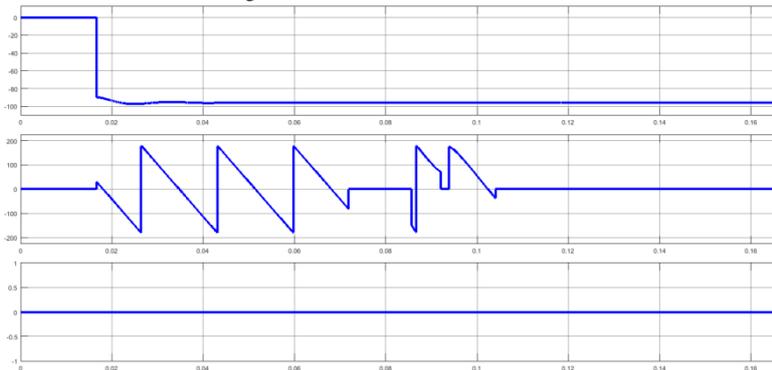


Figure 2: second fault occurrence location

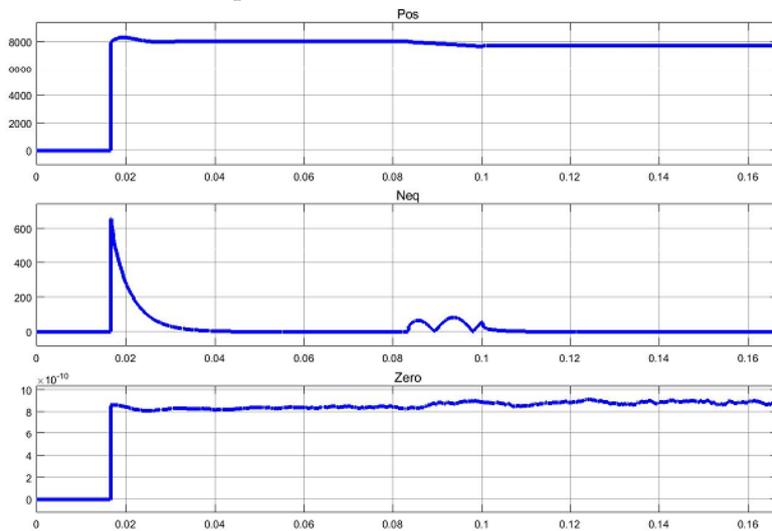


Figure 3: voltage broken signal for one type of fault that have the location and effect of fault on impedance in itself.

The average of absolute difference between features of tested signal and each section of reference data signal can be shown as equation 11:

$$AAD = \frac{\sum_{i=1}^n |a_i - d_i(\text{measured}) - r_{mi}|}{n} \quad (11)$$

In which, m is numbers between 1 to the number of line section. Moreover, n is the number of signals which are between data

and  $(a_i - d_i(\text{measured}))$  the sum of test voltage signals coefficients and finally  $r_{mi}$  in database. In table (2) based on inferred value of average absolute difference and definitions that we have based on thresholds about fault and its type, we can estimate the type of fault. In tables (3) and (4), the result of classification in training and testing stages is shown for on time repetition.

Table 2: type of fault estimation for some sample states

impedance	(AR) Approximate rate values		
60 ohm impedance	First value	seconf value	third value
	1.3084	-0.3470	0.9140
<b>(third type) duoble line fault</b>			
70 ohm impedance	First value	seconf value	third value
	0.9614	0.8935	0.9069

		(second type) three phases fault		
80 ohm impedance	First value	seconf value	third value	
	1.6231	1.1318	0.4123	
	(first type) single phase fault			
90 ohm impedance	First value	seconf value	third value	
	1.3915	-0.1898	1.1645	
	(third type) duoble line fault			

Table 3: calculating the accuracy of classes classification for training stage

	First type fault	second type fault	third type fault	forth type fault	accuracy
First type fault	11	1	0	0	91.67%
second type fault	1	12	1	0	86.67%
third type fault	0	0	12	2	85.71%
forth type fault	0	1	2	11	84.62%
<b>Average fault</b>					<b>87.16%</b>

Table 4: calculating the accuracy of classes classification for testing stage

	First type fault	second type fault	third type fault	forth type fault	accuracy
First type fault	6	1	0	0	85.71%
second type fault	0	7	0	0	100%
third type fault	0	0	12	2	71.43%
forth type fault	0	0	1	6	85.71%
<b>Average fault</b>					<b>85.71%</b>

## 5. Discussion

In most of prior systems which are done to detect and isolate the high impedance fault and its type, the process of detection automating has been less considered and in some cases some

researches can be addressed in this field that have automation in detection and generally use feature extraction model and classification. Table 5 shows the comparison of presented method in this paper with other similar methods in early years.

Table 5: comparison with similar methods in early years

Author	Combined algorithm	database	results
Bakar et al.	Feature extraction by wavelet by ranking method	Gathered data of 11 KV Malaysia network	four type fault detection, no accuracy report, no uncertainty addressing, and outputs and their relationship with real labels are not clear
Samantaray	Using classification which is based on decision tree and Kalman filter superposition	Different lines of India including 25 KV and 138 KV	one type of fault Detection from natural state, existing 98% and 88% accuracy for training and testing stages, operation reliability factor of 99% and fast operation
Rafinia et al	Using neural network and fuzzy logic system	Underground 20 KV lines of Iran	Two types fault detection associated with normal state of network, different states of frequency and low studied impedance, no clearance of predictability of testing and training stages
Hong et al.	Wavelet transformation, Clustering K-means methods, genetic algorithm and Support Vector Machine	18 bus 15 KV distribution system	Complexity of algorithmç no training and algorithm testing, low detected fault types, no uncertainty addressing, no clarity of outputs and their relationships with real labels
<b>Suggested method</b>	Feature extraction by wavelet and classification by ranking method and isolation of data for testing and training	Iran 20 KV network	Some fault types detection, resolving uncertainty and convenient generalizability for other network in distribution, 87% and 85% accuracy for testing and training stages in classification

## 6. Conclusion

In this paper different approaches of intelligent detection of high impedance fault was investigated and accordingly an optimized approach based on feature extraction by discrete wavelet transformation and support vector machine classification is suggested. Some of analysis showed better result than other location of fault and type of fault detection techniques including techniques such as Bakar et al. (2014), Rafinia and Moshtagh (2014), Hong and Huang (2015), Samantaray (2012), which generally have used automation for detecting. Therefore, most of these guidelines or almost all of them are trying to estimate fault in different distribution network including 11 KV, 20 KV, 132 KV, and or 400 KV and tailored to their needs in their country. Simulation and mathematical analysis of suggested algorithm is done in MATLAB programming environment and the results were promising and some of important factors which were

neglected in prior other guidelines got investigated. Nevertheless, we need to improve the performance which can lead to optimum high impedance fault detection in future.

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## STUDY OF THE RELATION BETWEEN AUDITED FINANCIAL REPORTING AND VOLUNTARY DISCLOSURE OF SOCIAL RESPONSIBILITIES OF LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

<sup>a</sup>BIZHAN ABEDINI, <sup>b</sup>ALI HOMAYOON, <sup>c</sup>MOHAMMAD KHODABAKHSH NAKHLI

<sup>a</sup> Assistant Professor, Hormozgan University, Iran

<sup>b</sup> Faculty members, Islamic Azad University, Bandar Abbas University

<sup>c</sup> MA in Accounting, Islamic Azad University, Bandar Abbas Branch

Email: <sup>a</sup>bizhan.abedini.bb@gmail.com,

<sup>b</sup>a.homayoon.12@gmail.com, <sup>c</sup>samereh7039@gmail.com

**Abstract.** Social responsibilities' accounting is a part of accounting knowledge with the aim on measuring and reporting social effects (social costs and benefits) caused by business activities. This study has been conducted to examine the relation between audited financial reporting and voluntary disclosure of social responsibilities of listed companies in Tehran Stock Exchange. For this purpose, statistical sample, including 95 companies in Tehran Stock Exchange during 2010-2014, was chosen. Multivariate regression method was applied to test hypotheses using panel data. Total results of study indicates that there is a significant relation between audited financial reporting and disclosure of information related to staffs relationships. The obtained results also show no significant relation between audited financial reporting and disclosure of information related to environment.

**Keywords:** social responsibilities, voluntary disclosure, audited financial reporting

### 1 Introduction

Transparent and reliable financial information generated by a comprehensive and suitable reporting system is one of key factors for evaluating situation and performance of a firm and deciding on exchange of securities issued by that firm. In today's professional societies, information are treated as reliable ones from the perspective of users if an independent organization supervises over reporting process of firms and over the important part of this process, which is financial statement. Audit organization is a sample of such independent organizations that usually monitor and investigate structure of internal control of reporting unit and the product of this internal control system, which is financial statement, in commercial units. According to the position and role of audit institutions in decision of user, real independence of auditor and quality of the audit institutions' performance is considered as the key factor for preparing audit reports. The role of audit in validating earning information of firms has become more important following the failure of large companies. Differences in audit qualities indicate themselves as differences in provided credit by auditors and quality of earnings of business holders (Hassa Yeganeh & Jafari, 2010).

The broadest concept of disclosure is providing information. Accountants employ this term limitedly and their purpose of this term is disseminating financial information related to a firm in financial statements, usually in frame of annual reports. In some cases. This concept is more limited that means providing information that is not concerned in financial statements. Dissemination of information in balance sheet and loss-profit statement as cash flows is usually considered under the title of recognition and measurement; therefore, the most limited concept of information disclosure consists of management analyses, notes attached to financial statements and complementary reports. Corporate social responsibility and disclosures related to it is a necessity that leads to firms' survival, because all firms have relationships with society. Hence, the society prepares the field for long-term survival of firms. Society benefits from activities and behaviors of firms. Expansion of companies' responsibilities implies that responsibilities of firms is outpaced its meaning in past, which was providing money for shareholders. Firms should be responsible toward beneficiaries including shareholders,

customers, staffs, product suppliers, banks, policy makers, environment and society. In this regard, companies have both economic and social responsibilities; therefore, financial statements should be accurate in accordance with the considerable role of corporate social responsibility and disclosures related to it. Nowadays, complexity of relations between firms as well as their communication with government and society people has created a circumstance in which, firms not only are responsible towards beneficiaries but also are responsible toward society members. In fact, the concept of social responsibilities discussed in theoretical literature of accounting due to the lack of attention to the interest of other society groups and environmental effects caused by business activities.

Accounting of social responsibilities is a part of accounting knowledge with the aim on measuring and reporting social effects (social costs and benefits) caused by business activities. Since each commercial unit is a member of society that is continuously in interaction with other members of society. According to the unwritten social agreements between society members to protect interests of all members, commitments and responsibilities of commercial unit should not be only limited to protecting stakeholders' interests but other commitments and responsibilities toward other groups in community such as creditors, staff, customers, sellers and other groups in society and surrounding environment. Social accounting can be defined as the disseminated information by an organization that enables beneficiaries to evaluate organization's performance when encountering with social problems (positive or negative) (Jafari, 1993).

The main objective and strategy of each firm is maximizing the value of the firm, which can be achieved through concentrating on risk and uncertainty. According to conducted studies in past, researchers believe that high level of participation of firms regarding high social responsibilities is associated with higher performance and value of firm, lower financial risk, lower informational asymmetry, accessibility to financial resources, and lower capital cost. In firms with lower social responsibility, social responsibilities' activities is one reasons for conflict between different beneficiaries, reduction in firm's resources due to unnecessary costs, and competitive weakness compared to firms with more social responsibilities.

According to the role of audit in quality of financial and non-financial statements of firms and importance of the level of social responsibilities of companies in increasing performance and value of firms, this study was conducted to examine the relation between audit of financial statements and voluntary disclosure of social responsibilities of firms with the aim on explaining the behavior of firms in field of their policies related to social responsibilities' reporting in order to improve relative position of firms compared to their competitors.

### 2 Theoretical Literature and Research Background

Audit is a kind of supervision that is applied in firms in order to reduce informational asymmetry and to control managers' freedom of action within financial reporting. Auditors would increase the validity of available information to investors. The higher the accuracy and quality of provided information by the firm, the lower informational risk and uncertainty of investors will be. Reduced uncertainty leads to lower demand for rate on return by investors (Elahi et al., 2015). Accordingly, it can be stated that quality of audit leads to reduced capital cost. Increase in accuracy of relevant information to higher quality of audit reduces the ability of manager to use voluntary accruals; hence, this negatively affects earning management. Therefore, firms with high quality of audit have lower earning management.

Manager prepares financial statements and these financial statements are audited before disclosure. Auditors are capable of effecting on chosen accounting methods by managers (Rick et al., 1991); hence, they influence on ultimate financial statements leading to increase reliability of reported accounting figures (Elliott et al, 1998). Large audit institutions have more financial ability to have better control and assurance compared to small audit institutions. Auditor guarantees that financial statements are free from material mistreatment. Audit subtilizes undesirable effects of separation between ownership and management reducing informational asymmetry between users and providers of financial statements. Therefore, auditing is used as a tool to reduce informational risk and increase quality of financial reporting. Reduced informational risk leads to reduction in capital cost of ordinary shares (Leuz & Verrecchia, 2005).

Accounting disclosure plays an important role in individual and corporate decision making. In particular, a fundamental use of accounting information is to help investors make an effective decision concerning their investment portfolios (Omran & Hoque, 2010). Disclosure should not be only considered in scope of providing information for investors and creditors. Every commercial unit as a reporter unit, has various beneficiaries including managers, staffs, customers, government, legislating authorities and the public whose rights has been less considered due to shareholders' ownership and the rights of debt securities. Today's economy in which, financial and non-financial information is the base of majority of decisions makings in capital markets, managers of commercial units play an important role in disclosure of such information (Ghorbani, 2009). According to the prior experiences, companies are not willing to increase disclosure level in their financial statements. However, information disclosure is a vital factor for optimal decision making by investors for capital survival (Salahinejad & Tabatabaean, 2009).

Disclosure of environmental information of the firm is a part of environmental and social reporting and disclosure, which mostly has non-financial nature. Disclosure of accounting information of environment, a key element in environmental reporting, would enable firms to perceive the conditions of environment protection and cope with environmental issue using this information. Also, it is possible to create a positive attitude among shareholders and capital market through a suitable disclosure of environmental information and financial reporting and to increase wealth of shareholders increasing earning and income of each share besides increasing current value of stock.

Disclosure of environmental and social information by the company has several roles including:

1. Evaluation of environmental and social effects of corporate activities
2. Effective measuring of environmental and social programs of company
3. Reporting environmental and social responsibilities of company
4. Allowing internal and external information systems to evaluate all resources and sustainable effects of company (Jenkins & Yakovleva, 2006).

There are various and important regulations for financial reporting and disclosure in many countries. For instance, businesses in USA should follow rules and regulations of disclosure enacted by SEC in order to access to capital markets (Naderi Qomi, 2007). In Iran, Article 18 in chapter 3 of Information Disclosure Act for listed companies in Tehran Stock Exchange entitled "method of information disclosure" approved in 2002 and 2003 by Stock Accusation has ruled that in order to guarantee simultaneous access of users to the information of this Act, publisher of stock market should disclose relevant

information on internet at the considered time (Mahdaviipoor et al., 2010).

Chen et al., (2015) conducted a study to investigate the relation between audited financial reporting and voluntary disclosure of corporate social responsibility reports. Prior researches imply that social responsibility report of make investors aware but it has no validity. This research studies weather commitment to audit of financial results, a measure of audited financial reporting, is associated with more validity of social responsibility report. Results obtained from this research show that audit fees is positively related to the possibility of issued independent social responsibility report and this positive relation will be stronger if managers experience more need of validity.

Frank et al., (2015) studied on characteristics of chief executive officer (CEO), social responsibilities and firm's value. This study has applied traditional prediction theory of agency cost to examine if companies with powerful executive managers tend to invest more in activities with high corporate social responsibility. For this purpose, three criteria including CEO compensation, CEO tenure, and duality of CEO's task were used to measure the power of CEO. Results obtained from research indicate that power of CEO is negatively related to the level of social responsibility in company. Also, results imply that firm's activities regarding increase in social responsibility would lead to increase in firm's value.

Bahar Moghadam et al., (2013) studied the effect of corporate governance mechanisms on disclosure of social responsibility of companies. In this study, the effect of some corporate governance mechanisms on disclosure of corporate social responsibility in studied using regression method of panel data to test research; therefore, it is determined in this study that selected variables of corporate governance mechanisms except dual responsibility of OECD in board of managers has a positive and significant relation with disclosure of corporate social responsibility and disclosure level in selected 93 companies in Tehran Stock Exchange during 2006-2010 is low.

Foroghi et al., (2008) conducted as study entitled "attitude of managers toward disclosure of social accounting information in listed companies in Tehran Stock Exchange". Questionnaire was used to collect required data. The results obtained from this study show that managers of Iranian companies tend to disclose information related to social interests and welfare issue of employees, while they are not willing to disclose information related to social cost of their organization.

### 3 Research hypotheses

According to the determined objectives, research hypotheses are as follows:

Main hypothesis: there is a significant relationship between audited financial reporting and disclosure of corporate social responsibility.

Secondary hypotheses:

Hypothesis 1: there is a significant relationship between audited financial reporting and disclosure level of information related to employee relationships.

Hypothesis 2: there is a significant relationship between audited financial reporting and disclosure of information related to community involvement.

Hypothesis 3: there is a significant relationship between audited financial reporting and disclosure of information related to production.

Hypothesis 4: there is a significant relationship between audited financial reporting and disclosure of information related to environment.

### 3.1 Statistical population and sample

Statistical population of this study consists of all listed companies in Tehran Stock Exchange during 2010-2014. Some limitations were applied to select sample firms:

- Its financial period is on March 19<sup>th</sup> regarding comparable increase
- There is no change in financial year during studied period (2010-2014)
- Financial information are available
- The firm is not included in financial companies (such as banks and financial institutions), investment companies or financial intermediaries.

According to the mentioned limitations, the sample obtained to 95 listed companies in Tehran Stock Exchange in frame of 475 year-company, which their information was collected from Tehran Stock Exchange Organization, Rahavard Novin software, and audited financial statements of companies. Eviews6, econometric software, was used to estimate regression model.

### 3.2 Research model and variables

According to theoretical bases of research, research's model, which is adopted from study of Chen et al., (2015), is as follows:

$$CSRDi_{i,t} = \beta_0 + \beta_1 LNFEEl_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 LEV_{i,t} + \beta_5 MTB_{i,t} + \varepsilon_{i,t} \quad (1)$$

#### 3.2.1 Dependent variable

##### Disclosure of corporate social responsibilities

This variable consists of 4 dimensions including disclosure of information related to employee relationships (EMPD), disclosure of information related to community involvement (COMD), disclosure of information related to production (PROD) and disclosure of information related to environment (ENVD). Total value of corporate social responsibilities is obtained from sum of partial values of social responsibility dimensions and this can be calculated based on the following equation (Nirwanto et al., 2011; Saleh et al., 2010; Chen et al., 2015):

$$CSRDi = EMPD + COMD + PROD + ENVD \quad (2)$$

##### Disclosure of information related to employee relationships (EMPD)

6 criteria are required to indicate disclosure level of information related to employee relationships. These criteria include:

1. Environmental health of employees
2. Employee training
3. Employee benefits
4. Employee characteristics

5. Employee share ownership
6. Employee safety and health

##### Disclosure of information related to community involvement (COMD):

6 criteria are required to indicate disclosure level of information related to community involvement. These criteria include:

1. Granting cash
2. Charity program
3. Scholarship program
4. Financial supporters for sport activity
5. Supporters of national pride
6. Public plans

##### Disclosure of information related to production (PROD):

4 criteria are required to indicate disclosure level of information related to production:

1. product safety
2. product quality
3. product development
4. After-sales service

##### Disclosure of information related to environment (ENVD):

4 criteria are required to indicate disclosure level of information related to environment:

1. Air pollution control
2. Compensation and Prevention Program
3. Protect and use of recycled products
4. Granting reward in field of environment (ISO 14000).

The firm will get the score 1 if each of indices above are disclosed in financial statements and annual reports provided by Board of Directors for the General Assembly; otherwise, the firm will get score 0. Total of scores each variables indicates the disclosure level of corporate social responsibilities.

#### 3.2.2 Independent variable:

**Audited Financial Reporting:** according to the study of Chen et al., (2015), natural logarithm of firm's audit fee is used to measure audited financial statements in this study.

#### 3.2.3 Control variables:

- **Firm size:** natural logarithm of firm sale
- **Return on Asset:** ratio of earnings before interest and tax to total assets
- **Financial Leverage:** ratio of book value of all debts to book value of total assets
- **MTB:** market value of equity to book value of equity

## 4 Results

Descriptive results obtained from research variables indicated that mean of audit fee of studied companies was equal to 6.338. Also, disclosure level of information showed that companies have the most disclosure of information related to employees and community involvement, meanwhile, the have the lowest level of disclosure of information related to environment. In other words, the lowest level of disclosure among companies was associated with environmental information.

Table 1. Descriptive statistics

variable	mean	med	standard deviation	Min	Max
Audit fee	6.338	6.304	0.887	2.89	8.9
Disclosure of employee information	2.83	3	0.794	1	5
disclosure of community involvement information	2.263	2	0.849	1	4
Disclosure of production information	1.446	1	0.572	0	3
Disclosure of environment information	1.202	1	0.585	0	2
firm size	13.23	13.22	1.500	8.9	18.44
return on asset	0.672	0.654	0.282	0.085	2.184
MTB	2.262	1.860	1.98	3.967	8.923

#### 4.1 Results of testing hypothesis 1

Hypothesis 1: there is a significant relationship between audited financial reporting and disclosure level of information related to employee relationships. As it is seen, significance level of t value of audit fee (4.322) at error level of 5% is lower than this level; hence, it is significant (Sig=0.000). Accordingly,  $H_0$  is rejected at confidence level (>95%) and it means that there is a positive and significant relation between audited financial reporting and disclosure level of information related to employee

relationships among listed companies in Tehran Stock Exchange. In other words, the higher (or lower) the audit fee of financial statements in companies, the more (or lower) the disclosure level of information related to employee relationships will be in companies. Also, control variables testing indicated that at error level of 5%, variables including return on assets and BTM had negative and positive effect on disclosure level of information related to employee relationships respectively, while firm size and financial Leverage had not significant effect.

Table 2. Results of estimation of regression model of hypothesis 1

variable	regression coefficient	standard error	t value	Sig level	result
Intercept	0.479	0.716	0.669	0.504	-
Audit fee	0.222	0.051	4.322	0.000	$H_0$ is rejected
Firm size	0.081	0.058	1.386	0.167	-
Return on assets	-0.975	0.388	-2.511	0.013	-
Financial Leverage	-0.194	0.184	-1.053	0.293	-
MTB	0.051	0.018	2.771	0.006	-
determination coefficient	0.483		F value		3.541 (0.000)
Adjusted determination coefficient	0.374		Durbin-Watson		2.195

#### 4.2 Results of testing hypothesis 2

Hypothesis 2: there is a significant relationship between audited financial reporting and disclosure of information related to community involvement. As it is seen, significance level of t value of audit fee (1.653) at error level of 5% is more than this level; hence, it is not significant (Sig=0.099). Accordingly,  $H_0$  is not rejected at confidence level (>95%) and it means that there is not a positive and significant relation between audited financial

reporting and disclosure level of information related to community involvement among listed companies in Tehran Stock Exchange. Also, control variables testing indicated that at error level of 5%, only the variable of firm size had a positive and significant effect on disclosure level of information related to community involvement, while financial Leverage, return on assets, and BTM had had not significant effect.

Table 3. Results of estimation of regression model of hypothesis 2

variable	regression coefficient	standard error	t value	Sig level	result
Intercept	-0.399	1.114	-0.358	0.720	-
Audit fee	0.114	0.069	1.653	0.099	$H_0$ is not rejected
Firm size	0.164	0.082	1.996	0.047	-
Return on assets	-0.625	0.470	-1.330	0.185	-
Financial Leverage	-0.116	0.237	-0.491	0.624	-
MTB	0.018	0.025	0.725	0.469	-
AR (1)	0.113	0.058	1.929	0.055	-
determination coefficient	0.656		F value		5.322 (0.000)
Adjusted determination coefficient	0.533		Durbin-Watson		2.308

#### 4.3 Results of testing hypothesis 3

Hypothesis 3: there is a significant relationship between audited financial reporting and disclosure of information related to production. As it is seen, significance level of t value of audit fee (3.279) at error level of 5% is lower than this level; hence, it is significant (Sig=0.001). Accordingly,  $H_0$  is rejected at confidence level (>95%) and it means that there is a positive and significant relation between audited financial reporting and

disclosure level of information related to production among listed companies in Tehran Stock Exchange. In other words, the higher (or lower) the audit fee of financial statements in companies, the more (or lower) the disclosure level of information related to production will be in companies. Also, control variables testing indicated that at error level of 5%, none of variables had significant effect.

Table 4. Results of estimation of regression model of hypothesis 3

variable	regression coefficient	standard error	t value	Sig level	result
Intercept	0.155	0.891	0.173	0.862	-
Audit fee	0.180	0.055	3.279	0.001	$H_0$ is rejected
Firm size	0.004	0.067	1.065	0.948	-
Return on assets	-0.302	0.385	0.786	0.433	-
Financial Leverage	0.018	0.194	0.093	0.926	-
MTB	0.020	0.020	1.000	0.318	-
AR (1)	0.093	0.053	1.600	0.111	-
determination	0.466		F value		2.434

coefficient			(0.000)
Adjusted determination coefficient	0.274	Durbin-Watson	2.283

#### 4.4 Results of testing hypothesis 4

Hypothesis 4: there is a significant relationship between audited financial reporting and disclosure of information related to environment. As it is seen, significance level of t value of audit fee (0.684) at error level of 5% is more than this level; hence, it is not significant (Sig=0.001). Accordingly,  $H_0$  is not rejected at

confidence level (>95%) and it means that there is not a positive and significant relation between audited financial reporting and disclosure level of information related to environment among listed companies in Tehran Stock Exchange. Also, control variables testing indicated that at error level of 5%, only firm size had positive and significant effect.

Table 5. Results of estimation of regression model of hypothesis 4

variable	regression	standard error	t value	Sig level	result
Intercept	-0.666	0.837	-0.796	0.427	-
Audit fee	0.035	0.051	0.684	0.495	$H_0$ is not rejected
Firm size	0.125	0.062	2.013	0.045	-
Return on assets	0.220	0.361	0.609	0.543	-
Financial Leverage	0.037	0.179	0.206	0.837	-
MTB	-0.001	0.019	-0.033	0.974	-
AR (1)	0.059	0.058	1.014	0.312	-
determination coefficient	0.550		F value		5.405 (0.000)
Adjusted determination coefficient	2.350		Durbin-Watson		0.388

#### 5 Conclusion

This study was conducted to examine the relation between audited financial reporting and voluntary disclosure of social responsibilities in listed companies in Tehran Stock Exchange. According to the results obtained from testing main hypothesis, hypotheses 1 and 3, in relation with significant relationship between audited financial reporting and disclosure of information (based on the criteria of employee relationships and production), were accepted in regression test and this relation is positive and direct. It means that the higher the audit fee of financial statements in companies, the more the disclosure level of information related to social involvement and production will be in companies. The reason for this result might be related to the credit and fame of large audit institutions in society; hence, these institutions can more independently issue their vote compared to small audit institutions. Quality of audit reporting of large institutions is more than small audit institution. However, small audit institutions are not as famous as large audit institutions and their contracts are fewer than contracts in large audit institutions; accordingly, report quality of small audit institutions is lower than reports of large audit institutions. According to the research results and theoretical bases in this regard, audit is a kind of supervision in companies that is applied in firms to reduce information asymmetry and to control freedom of managers' actions within financial reporting. In comparison with small audit institutions, large audit institutions have more financial power to perform better control and assurance. Auditor provides a rational confidence that financial statements are free from considerable distortions. Audit would attenuate undesirable effects of ownership and management separation reducing informational asymmetry between users and providers of financial statements. Therefore, auditing is a tool to reduce informational risk and increase quality of financial reporting. Audit fee is one of criteria to measure quality of audit. Audit fee shows the extra effort of auditor to increase quality of audit. In this case, employers pay more to large audit institutions because they expect to receive high-quality audit services. Empirical evidences approve the relation between size of audit institution and quality of financial statements. Large audit institutions are more strongly able to discover earning management. Also, conducted studies in this field corroborate the positive relationship between audit institution size, audit fee and auditor's accuracy so that great auditors disclose those reports that are more accurate with more information. Expert auditors would improve the quality of employer's disclosure, increase the effect of information of financial statements on decisions of investors, and reduce fraud or provided inaccurate

financial statements. Audit of large audit institutions can effect on disclosed information by companies for its shareholders reducing likelihood of lack of optimal disclosure of information or disclosure of invalid information; therefore, it can be concluded based on testing hypotheses 1 and 3 that disclosure of social responsibility related to employee relationships and production of companies are affected by audit fee of financial statements. It means, the higher the audit fee and the larger the size of audit institution, the more improved the disclosure of corporate social responsibilities will be. This mechanism is the infrastructure of social responsibility disclosure. In other words, results obtained from study indicate that effectiveness of audited financial reporting in disclosure of social responsibility related to employee relationships and production was accepted through interference of large audit institutions. The results indicate that benefitting from large audit institutions acts as a facto to increase social responsibility disclosure.

The results obtained from testing hypotheses 2 and 4 of main hypothesis, in relation with the significant relationship between audited financial reporting and disclosure level of information based on criterion related community involvement and environment, led to rejection of these hypotheses in regression test. It means that empirical findings and evidences indicate that there is not a significant relation between audit fee and disclosure level of information based on criterion related community involvement and environment. According to results of hypotheses and comparing them with previous studies, some other factors (except audit fee) can effect on disclosure of information based on criteria related to environment; therefore, some other criteria and variables except disclosure of information based on criteria related to social involvement and environment should be considered to examine the relationship between audited financial reporting and disclosure of information in companies. Furthered studies should be conducted to identify these factors. Some recommendations can be proposed in accordance with results obtained from research hypotheses:

- According to the results obtained from hypothesis 1, the positive relationship between audited financial reporting and disclosure level of information related to employee relationships, it is recommended to investors and to large investors in particular that prefer investing in companies with high audit fee, because audited financial statements by large audit institutions improves disclosure of corporate social responsibility reports related to employee relationships.

- According to the results obtained from hypothesis 3, the positive relationship between audited financial reporting and disclosure level of information related to community involvement, it is recommended to managers performing more serious actions in field of using large audit institutions in order to increase the quality of disclosure of social responsibility considering audit as an essential factor for long-term survival for companies.
- According to the results obtained from hypotheses 2 and 4, the lack relationship between audited financial reporting and disclosure level of information related to community involvement and environment and comparing them with previous studies, other factors except audit fee can effect on disclosure of information based on criterion related to environment; therefore, other factors and criteria except disclosure level of information related to community involvement and environment should be studied in further studies in order to evaluate the relationship between audited financial statements and corporate social responsibility disclosure.

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## RELATIONSHIP BETWEEN INTERNAL MARKETING AND FEEDBACK WITH SERVICE QUALITY

<sup>a</sup>FOROUGH REZVANI ZADEH, <sup>b\*</sup>HOSSEIN SEPASI,  
<sup>c</sup>PARIVASH NOURBAKSHSH

<sup>a</sup>M. A, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>b</sup>Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

<sup>c</sup>Professor, College of Physical Education and Sport Sciences, Karaj Branch, Islamic Azad University, Karaj, Iran

Email: <sup>a</sup>forough.rezvanizadeh.se@gmail.com,

<sup>b</sup>hosseinsepasi@yahoo.com,

<sup>c</sup>parivash.nourbakhsh.ahri@gmail.com

**Abstract.** The present study was conducted to examine the relationships between internal marketing and feedback with service quality among employees working at a fitness clubs. Samples consisted of 50 male and 50 female (n = 100) employees in charge of working fitness program in Total Resistance Exercise (TRX) clubs. In this correlational-descriptive study, Davis' questionnaire (2005) assessing internal marketing, feedback and service quality was used as the data collection tool. The results indicated that there is a significant relationship (r=0.80) between feedback and internal marketing which means that an increase in the amount of feedback results an increase in the effectiveness of internal marketing. The relationships between internal marketing and service quality (r=0.84) and between feedback and service quality (r=0.84) were statistically significant (p<0.01).

**Keywords** Internal Marketing, Feedback, Service Quality

### 1 Introduction

In today's dynamic environment and competitive world, human resources are considered the most important intangible assets and the main sources of sustainable competitive advantage in organizations. Hitt et al., (2007) stated that the only ways to survive in today's competitive world are to consider human resources as the main organizational assets and to put ongoing effort into meeting their needs. Therefore, organizations should focus their efforts on the development and reinforcement of organizational culture in which internal customer (employees) satisfaction is as important as external customer satisfaction (Liu, 2009). In order to obtain superior service quality and a high level of external customer satisfaction, having customer-oriented internal customers (employees) committed to organizational goals and visions is a need. Such employees do not hesitate to do extra job-related activities in favor of organizational success. The concept of internal marketing highlights the importance of the role played by internal customers (employees) in the success of external marketing processes (Papasolomou & Vrontis, 2006). The scope of financial services is changing quickly worldwide. In this ever-changing and competitive environment, fitness clubs have to act quickly to achieve higher levels of customer satisfaction and superior service quality (Arasli, et al, 2005). Superior service quality leads to higher levels of customer satisfaction, customer loyalty and customer retention and boosted market shares, productivity, performance and profitability (Kazazi, 2010). Thus, employees' skills, attitudes and behaviors are very important, because employees are

responsible for providing services consistent with customers' expectations (Awwad & Agti, 2011). In addition, employees' organizational commitment and voluntary practices of citizenship behaviors improve service quality and customer satisfaction. Internal marketing facilitates the achievement of these goals by considering employees as internal customers. It can be said that proper internal marketing equips service provider organizations with competencies and capabilities required for taking advantage of environmental opportunities and improving employees' performance (Rodringuse, et al., 2010).

Suspension training is a form of resistance training that has been categorized as a subfield of physical fitness. The field of suspension training is still very new and, therefore, further steps can be taken to introduce it to the society. Suspension exercises help participants use a specific resistance and endurance protocol. Each suspension exercise strengthens the body and simultaneously develops strength, balance, flexibility and stability. In fact, these exercises are prerequisites of all types of sport and even routine daily activities of non-athletes. Randy Hetrick developed the Total Resistance Exercise (TRX) equipment and its suspension training exercises in the 1990s.

Evidence shows that no similar study has been conducted in this area. Accordingly, the results of this study can provide fertile ground for the qualitative and quantitative development of the TRX by recognizing the relationships between internal marketing, feedback and service quality in fitness clubs offering suspension exercises in Karaj. Therefore, the present study aimed at answering the following questions: 1) is there any significant relationship between internal marketing, feedback and service quality? 2) Which of the variables of internal marketing and feedback can predict service quality in fitness clubs of Karaj?

### 2 Methodology

The present study was a descriptive-correlational study. The population consisted of employees working for 50 fitness clubs (TRX) in the city of Karaj, Iran. First, thirty fitness clubs were randomly selected and then a total of 100 employees (50 men and 50 women) randomly served as two samples of this study.

In order to collect data, Davis' questionnaires (2005) internal marketing (25 items), feedback (7 items) and service quality (16 items) were used to collect the data. The three questionnaires were scored on a 5-point Likert scale ranging from strongly agree to strongly disagree. Cronbach's alphas of 0.89, 0.84 and 0.78 were obtained for internal marketing, feedback and service quality, respectively

### 3 Results

The descriptive results are presented in table (1).

Table 1. Descriptive statistics of variables

Variable	Statistical indices					
	Mean			Standard Deviation		
	Female	Male	Total	Female	Male	Total
Internal Marketing	3.84	3.73	3.78	0.40	0.52	0.47
Feedback	3.72	3.55	3.63	0.42	0.68	0.57
Service Quality	3.85	3.67	3.76	0.44	0.68	0.58

Research Hypotheses are presented as follows:

H1: There are significant relationships between internal marketing, employees' feedback and service quality of fitness clubs in Karaj.

In order to investigate the relationships between study's variables among all employees, Pearson correlation test was used. As shown in table (2), the relationship between internal marketing and feedback was significant (r=0.81), indicating that increased amount of feedback led to more efficient internal

marketing practices among employees; the relationship between feedback and service quality was significant ( $r=0.84$ ), indicating that greater amount of feedback led to higher levels of service quality; the relationship between feedback and service quality was also significant ( $r=0.84$ ), indicating that greater amount of feedback resulted in higher service quality.

Therefore, the first hypothesis concerning significant relationships between internal marketing, employees' feedback and service quality of fitness clubs in Karaj was confirmed.

Table 2. Results of Pearson Correlation (total employees)

Variable	1	2	3
1. Internal Marketing	1		
2. Feedback	0.81**	1	
3. Service Quality	0.84**	0.84**	1

\*\*correlation is significant at 0.01 significance level ( $p<0.01$ )

H2: There are significant relationships between internal marketing, female employees' feedback and service quality of fitness clubs in Karaj.

practices led to higher levels of service quality; the relationship between feedback and service quality was also significant ( $r=0.52$ ), indicating that greater amount of feedback led to higher levels of service quality.

In order to investigate the relationships between study's variables among female employees, Pearson correlation test was used. As shown in table (3), the relationship between internal marketing and feedback was significant ( $r=0.71$ ), indicating that increased amount of feedback resulted in more efficient internal marketing practices among female employees; the relationship between internal marketing and service quality was significant ( $r=0.62$ ), indicating that more efficient internal marketing

Therefore, the second hypothesis concerning significant relationships between internal marketing, female employees' feedback and service quality of fitness clubs in Karaj was confirmed.

Table 3. Results of Pearson Correlation (female employees)

Variable	1	2	3
1. Internal Marketing	1		
2. Feedback	0.71**	1	
3. Service Quality	0.62**	0.52**	1

\*\*correlation is significant at 0.01 significance level ( $p<0.01$ )

H3: There are significant relationships between internal marketing, male employees' feedback and service quality of fitness clubs in Karaj.

( $r=0.88$ ), indicating that more efficient internal marketing practices resulted in higher levels of service quality; the relationship between feedback and service quality was also significant ( $r=0.88$ ), indicating that greater amount of feedback led to higher levels of service quality.

In order to investigate the relationships between study's variables among male employees, Pearson correlation test was used. As shown in table (4), the relationship between internal marketing and feedback was significant ( $r=0.86$ ), indicating that increased amount of feedback led to more efficient internal marketing practices among male employees; the relationship between internal marketing and service quality was significant

Therefore, the third hypothesis concerning significant relationships between internal marketing, male employees' feedback and service quality of fitness clubs in Karaj was confirmed.

Table 4. Results of Pearson Correlation (male employees)

Variable	1	2	3
1. Internal Marketing	1		
2. Feedback	0.86**	1	
3. Service Quality	0.88**	0.88**	1

\*\*correlation is significant at 0.01 significance level ( $p<0.01$ )

H4: Feedback, internal marketing and gender can predict service quality of fitness clubs in Karaj.

percentage of criterion variable predicted by predictor variables) were determined. Therefore, the predictor variable feedback could predict 77% of variance in service quality of fitness clubs in Karaj. So, there was a linear relationship between the predictor variable and the criterion variable.

In order to examine the predictive power of variables gender, feedback and internal marketing to predict service quality of fitness clubs in Karaj, multivariate regression analysis was conducted. As shown in table (5), in the first step, coefficient of multiple correlation between internal marketing and service quality ( $R=0.84$ ) and coefficient of determination ( $R^2=0.70$ ) (i.e. the percentage of criterion variable predicted by predictor variables) were determined. Therefore, the predictor variable internal marketing could predict 70% of variance in service quality of fitness clubs in Karaj. In the second step, coefficient of multiple correlation between feedback and service quality ( $R=0.88$ ) and coefficient of determination ( $R^2=0.77$ ) (i.e. the

To examine regression coefficients, stepwise regression analysis was conducted and the constant value of  $-0.1$  was obtained. Therefore, considering regression coefficients of internal marketing, feedback and the obtained constant value ( $-0.1$ ), regression equation was as follows:

$$Y' = -0.1 + 0.57(\text{internal marketing}) + 0.47(\text{feedback})$$

(1)

Table 5. Results of Stepwise Multivariate Regression Analysis

Criterion variable	Predictor variable	R	R2	F, P	Regression coefficient	
					Internal Marketing	Feedback
Service Quality	Internal Marketing	0.84	0.70	229.3/0.001	B=1.03	
					$\beta=0.84$	
					0.001	
	Feedback	0.88	0.77	164.9/0.001	B=0.57	B=0.47
					$\beta=0.46$	$\beta=0.46$
					0.001	0.001

#### 4 Discussion

The present study was conducted to examine the relationships between internal marketing, feedback and service quality among employees working at fitness clubs in Karaj (Iran). The results indicated significant relationships between internal marketing, employees' feedback and service quality; so that, increased amount of internal marketing practices and feedback led to higher levels of service quality. These findings were in line with results of other studies conducted by Davis (2005) and Rafiq and Ahmad (2000). Davis (2005) examined the relationship between internal marketing and service quality and Rafiq and Ahmad (2000) explored the concept of internal marketing. The concept of internal marketing has been developed as a result of the development of service-provider industries in the 1980s and considerable efforts made to increase the quality of services by analyzing and monitoring service-provider mechanisms (i.e. employees). Internal marketing practices are based on a fundamental assumption stating that superior service quality can only be achieved by a group of motivated and customer-oriented employees. The relationship between customer satisfaction and employee satisfaction was first theoretically examined in retail marketing studies and gradually gained a prominent place in other areas of management and marketing; so that, the most recent model relating customer loyalty and employee satisfaction to profitability of service-provider organizations is the service-profit chain. Further studies not only confirmed the existence of a significant relationship between customer loyalty and employee satisfaction, but also expanded the scope of internal marketing practices. For example, Berry (1985) proposed that employees are internal customers of organizations and defined internal marketing as the consideration of employees as 'internal customers' and duties as 'internal products' meeting the needs of internal customers in line with organizational goals. He also stated that internal marketing implies treating employees like external customers and that internal marketing is a strategy to design occupational duties in line with employees' needs. The overall goal of internal marketing is to create organizational climate and occupational products that result in the availability of qualified employees who provide services more efficiently. When the overall employees' performance is calculated based on the amount of sold products, the marketing task is not only encouraging external customers to buy products, but also motivating internal customers to provide services efficiently. Internal marketing associate's concepts related to human resources with concepts related to marketing practices. Gronroos (1984) believed that the goal of internal marketing is to apply a marketing-based approach to motivate employees to become voluntarily involved in providing customer services.

The results also showed that internal marketing, feedback and gender can predict service quality. This finding was in line with results of a study conducted by Davis (2005). Davis believed that organizations can achieve superior service quality only when they produce products or provide services beyond their customers' expectations. Hence, the main objective of the Total Quality Management (TQM) is to fully satisfy the needs of customers (Kotler & Armstrong, 1999). Internal marketing is the basis of service marketing. The nature of business has changed; so that, in many successful organizations, it is believed that providing efficient customer services is a source of competitive

advantage. The need for effective interactions between external and internal customers has been extensively discussed in the management literature. Experts believe that better-quality internal customer services result in better-quality external customer services. Effective internal transactions are prerequisites for successful exchanges with external markets. Moreover, it has been emphasized that 'ignoring internal customers and suppliers can endanger external customer satisfaction'.

#### 5 Conclusion

The results showed that internal marketing and considering the important role of employees can extensively affect service quality in fitness clubs. Paying attention to employees' needs and getting their feedbacks have a significant role in the decision-making processes, because the quality of internal marketing practices and employees' feedbacks can predict service quality. Research on the effects of feedback and internal marketing on service quality is still rare and it cannot be expected to solve all workplace-related problems at once. Moreover, other than internal marketing and feedback, there are many factors affecting service quality. Therefore, it is important to constantly focus on the organizational performance factors. In occupational environments, especially sports environments, the ultimate organizational goal is to enhance service quality by creating a proper occupational environment for all employees. The main limitation of this study was the lack of employees' familiarity with the concept of internal marketing.

The most important finding of the present study was the confirmation of significant relationships between internal marketing, feedback and service quality. Accordingly, organizational managers, especially sport managers, have to assess and reassess the statuses of internal marketing and employees' feedback periodically. They also have to appropriately react to employees' indifference and make efforts to create an ethical and motivating work climate to enhance internal marketing practices. Working in such an environment enhances employees' performance and improves organizational status. According to the results, the highest correlation was observed between internal marketing and service quality; therefore, understanding employees' organizational behaviors and paying attention to their feedbacks can provide fertile ground for the enhancement of service quality. The two variables of internal marketing and feedback could predict the quality of services in fitness clubs. In this study, internal marketing highly affected the quality of services; therefore, managers must be capable enough to effectively understand, analyze and manage a great deal of organizational behaviors.

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## THE EFFECT OF MUSIC TRAINING AND LISTENING TO MOZART MUSIC ON COGNITIVE & SOCIAL DEVELOPMENT OF PRESCHOOL CHILDREN

<sup>a</sup>MALIHE NEKOOIE, <sup>b</sup>AHMAD ZANDVANIAN, <sup>c</sup>ALIREZA BAKHSHAYESH

<sup>a</sup>*M.A in Educational Psychology, Yazd University, Iran*

<sup>b</sup>*Assistant Professor, Department of Education, Yazd University, Iran*

<sup>c</sup>*Associate Professor, Department of Psychology, Yazd University, Iran*

Email: <sup>a</sup>Malihenekooie@yahoo.com, <sup>b</sup>azand2000@yazd.ac.ir, <sup>c</sup>abakhshayesh@yazd.ac.ir

**Abstract.** The aim of this research was to comparison of the effect of music training and listening to Mozart music on cognitive & social development of preschool's children of Kerman City in 2013. This study was assigned in two groups of music training (experimental group) and listening to Mozart music (control group). For experimental, the music training and rehearsal in the Orff Approach were performed in 20 sessions of 75 minutes, and control group, exposed of fragments of Mozart's *D major* key at the 20 sessions of 75 minutes. Wechsler test and Vineland test were conducted on both groups before and after the interventions. Data analysis was carried out by one-way analysis of covariance. Results showed that the children attended at music training sessions have significantly gained higher scores than those listening to Mozart in terms of verbal and non-verbal abilities, IQ and social.

**Keywords:** music training; Mozart listening; cognitive and social development; preschool children

### 1 Introduction

Non-musical effects of musical training are examined and the results showed that they are mostly alluded to the childhood. Education in primary phases of childhood is of paramount importance in terms of sensitivity and receptivity of children from educational environments and sustainability of learning. Primary learning is an appropriate context for children's upcoming transactions; in fact, what are learnt in the childhood are more enduring and difficult to forget (Ghasem Tabar et al., 2011).

In the recent decades, musical learning has been taken in to account as an effective strategy to increase communicational, cognitive, and emotional capabilities of the children. Most scholars believed that musical responses of children are the most natural reactions which play important roles in various learning respects (Noor Mohammadi, 2004). In the recent years, there has been different scientific research (Bilhartz, Bruhn, and Olson, 1999) whose main common point has been the result that musical training is effective on cognitive growth and abstract thought. Gardner addressed music as an organizer of children's cognitive processes (cited by Ruscher & Zupan, 2000). Research indicates that musical lessons have positive relationship with performance in verbal abilities (Schellenberg, 2005; Marques, Moreno, Castro, and Besson, 2007; Patel & Iversen, 2007; Moreno et al., 2008), phonology awareness (Schellenberg & Peretz, 2008), spatial reasoning (Hetlnd, 2000), mathematics (Vaughn, 2000), memory (Rauscher et al., 1997; Lee, Lu & Ko, 2007; Stoesz et al., 2007; Jakobson et al, 2008), and IQ (Schellenberg, 2006). In describing the fact that musical capabilities and spatial reasoning abilities are related, Leng and Shaw (1991) put forward the "trion model of the cortex", based on which certain neuron activity patterns that are arranged in vast areas of the cortex for mental spatial-time processes are used for both spatial reasoning and musical activities. EEG-aided studies support trion model of the cortex. Leng and Shaw's model, together with theory of children's early sensitivity to music (Olsho, Schoon, Sakai, Turpin, & Sperduto, 1982; Krumhansl & Jusczyk, 1990; Jusczyk & Krumhansl, 1993), proposes the theory that musical training causes an improvement and evolution of neural paths involved in environment-dependent cognitive processes including spatial abilities. According to Hebb's learning principles, making reparative use of this neural network through musical learning can make it more capable to complete other abilities (Lefrancois, 2000).

There is overlapping between areas related to cortex's verbal abilities (BA22 and Wernicke's area) and areas of temporal stratum which is engaged for professional musical activities (Lotze et al, 2003). Since, according to conducted studies

(Gromko & Poorman, 1998; Rauscher, 1999; Mirbaha, Kaviani & Poolsaleh, 2003; Ho Cheung & Chan, 2003; Rauscher & Hinton, 2003; Schmithorst & Holland, 2004; Gromko, 2005; Jausovec, Jausovec & Gerlic, 2006; Bulduc, 2009; Hyward & Gromko, 2009; Amirian, 2011; Herrera et al, 2011), musical training can grows verbal abilities such as phonological awareness, verbal reasoning, and verbal memory.

Based on above-mentioned studies and aligned with them, this research is aimed at investigating the effects of musical training on children's cognitive and social abilities. Social development is an important aspect of growth that refers to interpersonal relationships (Seif, 2008). Social skill is a collection of learnt behaviors which enables individuals to make effective relationships with others and prevent from illogical social reactions. Social development is a balanced set of social skills and learnt adaptive behaviors. Masteries such as cooperation, responsibility, sympathy, continence, and self-reliance are components of social development (Amirtash, Sobhaninejad & Abedi, 2006). Slaby and Guara (2003) interpret social skill as social compatibility and the ability to make relationship with others in various social respects. Those whose social development is flourished have achieved a level of social relationship which enables them to easily live beside others. Basic indicators of social development can be found in fondness for others, self-confidence, relation with peers, development of social activities, tendency to criticism and reformation, and predisposition to leadership. Slawmouski and Dann (1996) consider social skill and recognition as a process which enables youngsters to predict and apprehend others' behaviors, control their own behaviors, and adjust their social interactions. Although several social groups and factors impact on the social development process (family, school, media, friends and etc), family is more influencing agent in social development of children (Shakerinia, 1997). It is the smallest, while the most important, social unit, which plays a key role in shaping children's personality and furnishing basic physical and emotional needs of the community individuals. Children's personality is directly influenced by their parents' genuine behaviors and is profiled in interaction thereto (Dillon, 2005, cited by Farrokhzad, 2008).

Hars, et al (2013), investigated effect of music-based multitask training on cognition and mood in older adults, were randomly assigned to intervention group, and control group. Six months of once weekly music-based multitask training was associated with improved cognitive function and decreased anxiety in community-dwelling older adults, compared with non-exercising controls. According to Schellenberg (2011a), 144 children were divided in to two groups, one of which was trained for 36 weeks and the other left untrained. Wechsler intelligence scale was used. Post-test showed that experimental group had significantly better scores in intelligence test as compared to control group. Schellenberg (2011c) investigated the relationship between musical lessons and intelligence in 106 male and female children of 9 to 12 years using Wechsler intelligence scale. 50 children were trained music for averagely 2 to 3 years and 56 children were left untrained. One-way analysis of variances indicated that trained group had significantly higher IQ rates than their untrained counterparts ( $P < 0.001$ ,  $F = 17.72$ ). Franklin et al (2008) in their research in the University of Michigan examined the impact of musical practices on verbal memory of 20 musicians of 10 years of experience using Reiven test and verbal memory. T-test showed that musicians gained significantly higher scores in verbal memory. In his study, Schellenberg (2007) investigated the relationship between musical training and IQ in Toronto, Canada, in 147 children of 6 to 11 years of old including 72 boys and 75 girls who had experienced musical training sessions for 23 months using Wechsler intelligence scale. Results of correlation test demonstrated that there is a positive and significant relationship between musical training and verbal IQ ( $p < 0.001$ ,  $r = 0.34$ ). He conducted the same study on 150 students of 16 to 25 years of age including 112 females and 38 males to examine the correlation between cognitive abilities in adulthood

and musical training in childhood in those who have experienced musical training sessions for an average of 3.7 years. Results showed that subjection to music in childhood has a positive relationship with IQ and educational performance ( $p < 0.01$ ,  $r = 0.23$  and  $p < 0.05$ ,  $r = 0.21$ ). On the basis of Sarkar & Biswas's review research (2015), the effect of music on the social behavior of ASD children can be established. In their investigation, Larijani and Razzaghi (2008) addressed application of performance art in social development of intellectually disabled students. They found that performance art-aided group training socially develops the intellectually disabled children ( $P < 0.01$ ). Since the conducted research affirms the effectiveness of musical training, this study aims to examine the impact of musical training on cognitive and social development as compared to listening to Mozart in both male and female Kerman's preschool children in 2012-13 educational years. Following questions are put forward:

1. Does musical training of preschool children cause an improvement of their Intelligent Quotient (IQ) as compared to those who have listened to Mozart?

1-1. Does musical training of preschool children cause an improvement of their verbal abilities as compared to those who have listened to Mozart?

2-1. Does musical training of preschool children cause an improvement of their non-verbal abilities as compared to those who have listened to Mozart?

2. Does group musical training of preschool children cause an improvement of their social quotient as compared to the control group?

## 2 Methodology

This study was quasi experimental design that was carried out based on pre-test and post-test with control group. 52 children were randomly selected and divided in to training group and Mozart group, the members of the former of which were trained for 20 weeks (one session of 75 minutes per week) and the member of the latter were exposed to Mozart's *D major* key for 20 weeks (one session of 75 minutes per week). After termination of the sessions, post-tests were conducted on both experimental and control groups. Statistical analysis of the data was carried out by analysis of covariance where all its suppositions were taken into account: normality, homogeneity of variance (table 1), random independent samples and homogeneity of regression slopes (Table 2).

Table 1: Test of Homogeneity of Variances

Variables	F	df1	df2	Sig.
Verbal abilities	0.001	1	50	0.97
Nonverbal abilities	0.041	1	50	0.84
IQ	0.389	1	50	0.53
Social quotient (SQ)	0.09	1	50	0.79

Table 2: homogeneity of regression slope

Variables	SS	F	Sig.
Verbal abilities	431.89	5.00	0.3
Nonverbal abilities	39.78	0.5	0.48
IQ	93.99	1.22	0.27
Social quotient(SQ)	694.16	1.02	0.31

### 2.1 Statistical Population, Samples, and Sampling

Population of this research includes all Kerman's preschool children in 2012-13. One preschool center was randomly selected by cluster random sampling method. In this research, from among all preschool centers from Kerman Province, one center was firstly selected. Then, 26 students were randomly selected for experimental group and the same number of students for the control group.

### 2.2 Instruments of the Research

Wechsler intelligence scale for children (1974) was utilized for measuring verbal abilities, nonverbal abilities and IQ of children between 5 to 15 years of old. It consists of measurement of verbal and nonverbal abilities in 12 equally divided subtests

(Ganji, 2007). Reliability coefficient of Cronbach's alpha was calculated to be 0.72.

*Vineland Social Maturity Scale* (1935) was utilized for measuring social maturity. It consists of 117 items and developed with regard to social maturity or individuals' abilities to take care of themselves and meet their own needs. Questions are age-based and include birth to 25 years of old. Scale questions are propounded on the ground of eight abilities, including: SHG-Self Help General, SHE-Self Help Eating, SHD-Self Help Dressing, SD-Self-Direction, OCC-Occupation, COM-Communication, LOC-Locomotion, and SOC-Socialization. In this research, a total of 57 items were presented to the parents of the children. Total scores of the questions for children less than three years of ages were taken into account for all subjects. Reliability coefficient of Cronbach's alpha was 0.85.

Table 3: A summary of musical training package in Orff Approach

Sessions	Training axes
before treatment	Pre-test
1 <sup>st</sup> session	Acquaintance and communication Familiarity with sound characteristics
2 <sup>nd</sup> session	Teaching notes' sequence and their names Teaching thrumming Rehearing concentration Musical games to improve audition and mental accuracy
3 <sup>rd</sup> session	Teaching de major key Teaching notes on five carrier lines Improvement of pitches recognition and quality of sounds
4 <sup>th</sup> session	Teaching a short lyrics-included piece Developing motional skills, body coordination, rhythm recognition, and motional precision
5 <sup>th</sup> session	Teaching notes' traction and their written form

6 <sup>th</sup> session	Rehearsing notes' traction on a new piece Developing rhythm recognition as well as emotional and motional precision
7 <sup>th</sup> session	Familiarity with silence in music
8 <sup>th</sup> session	Teaching new music Developing imagination, visualization, and creativity.
9 <sup>th</sup> session	Group rehearsals for more coordination
10 <sup>th</sup> session	Performing a demo concert for parents
after treatment	Post-test

Table 4: Research Design with two groups, Pre-test &amp; Post-test

Group	Pre-test	Treatment	Post-test	N
Experimental group = E	O	music training	O	26
Control Group = C	O	listening to Mozart	O	26

### 3 Results

Descriptive and ANCOVA findings are demonstrated in Tables 5 and 6. Scores averages of training group and Mozart group in verbal abilities, nonverbal abilities, IQ and SQ have significant differences in pretest. As seen in Table 6, effects of pretest in verbal abilities ( $p < 0.001$ ,  $F = 12.42$ ), non-verbal abilities ( $p < 0.001$ ,  $F = 82.39$ ), IQ ( $p < 0.001$ ,  $F = 42.29$ ) and Social Quotient ( $p < 0.001$ ,  $F = 58.05$ ) have been statistically significant and effective. In other words, pretest score has had an effect in

posttest, and some of variances of posttest scores has been impacted by pretest. Afterwards, to examine inter-mediatory effect on the dependent variable; pretest effect was omitted as covariate variable. After pretest scores were adjusted, a significant difference between two experimental and control groups in score average of verbal abilities ( $p < 0.001$ ,  $F = 91.56$ ,  $\text{Eta-square} = 0.651$ ), non-verbal abilities ( $p < 0.001$ ,  $F = 22.31$ ,  $\text{Eta-square} = 0.313$ ), IQ ( $p < 0.001$ ,  $F = 71.83$ ,  $\text{Eta-square} = 0.594$ ) and Social quotient ( $p < 0.001$ ,  $F = 340.52$ ,  $\text{Eta-square} = 0.861$ ) was obtained.

Table 5: Average of subjects' scores in pre- and post-tests

Indices	Tests	Training group		Mozart group	
		Average	SD	Average	SD
Verbal abilities	Pretest	102.92	13.07	97.69	13.11
	Posttest	109.96	15.36	99.53	13.19
Nonverbal abilities	Pretest	96.38	18.23	98.19	16.92
	Posttest	122.38	8.87	94.30	12.26
IQ	Pretest	99.15	14.6	97.42	13.02
	Posttest	118.23	11.7	96.5	11.98
Social quotient(SQ)	Pretest	180.68	22.52	183.81	21.84
	Posttest	243.48	22.2	178.65	17.92

Table 6: Analysis of Covariance (ANCOVA)

Tests		SS	df	MS	F	Sig.	Eta-square	adjusted mean Mozart	adjusted mean training
Verbal abilities	Pretest	1158.26	1	1158.26	12.42	0.001	0.202	-	-
	Group	8538.3	1	8538.3	91.56	0.001	0.651	95.26	121.4
Non Verbal abilities	Pretest	6428.50	1	6428.50	82.39	0.001	0.627	-	-
	Group	1740.88	1	1740.88	22.31	0.001	0.313	98.9	110.5
IQ	Pretest	3272.97	1	3272.97	42.29	0.001	0.463	-	-
	Group	5559.2	1	5559.2	71.83	0.001	0.594	97.1	117.7
Social quotient (SQ)	Pretest	11041.8	1	11041.8	58.05	0.001	0.542	-	-
	Group	57923.1	1	57923.1	304.52	0.001	0.861	177.6	244.5

\*\*\*  $p \leq 0.001$

So, the answer to question "Does musical training of preschool children cause an improvement of their Intelligent Quotient (IQ) as compared to those who have listened to Mozart?" will be positive and the difference of pre-test averages to the post-test was the effect of musical education. Eta square is about 0.594 and 59.4 % of whole variance of IQ scores is being explained by the musical education. Adjusted mean in experimental group (117.7) in comparison of adjusted mean in control group (97.1) indicated that IQ increased in music training group.

Eta square in verbal abilities is 0.651 and based on the adjusted average of verbal ability scores of music group (121.4) to the adjusted average of Mozart group (95.2) refers to 65.1% of individual differences in the pre-test scores of verbal ability of

experimental group related to the effect of musical education. So, for answering this question " Does musical training of preschool children cause an improvement of their verbal abilities as compared to those who have listened to Mozart?" is positive and the reason was the difference of the average of pre-test scores to the post-test of musical education. In the non-verbal abilities, adjusted average of non-verbal ability scores of musical group (110.5) to the adjusted average of Mozart group (98.9) was shown, which attributed to eta square (0.313) which indicates that 31.3% of individual scores in the pre-test scores are related to the non-verbal ability of experimental group related to the effect of music education. Therefore, answer to this question "Does musical training of preschool children cause an improvement of their non-verbal abilities as compared to those

who have listened to Mozart?" is positive and the difference of the pre-test averages to the post-test was the effect of musical education.

The scores of social quotient of music group (244.5) to the average of Mozart group (177.6) and the effect size of 0.861 showed that 86.1% of individual differences to the pre-test scores of social quotient of experimental group was related to the effect of musical education. So the answer to this question "Does group musical training of preschool children cause an improvement of their social quotient as compared to the control group?" is positive.

#### 4 Discussion

This research is aimed at comparing the effect of musical training and listening to Mozart on the cognitive and social growth of preschool's children of Kerman City. By neutralizing the effect of pre-test scores, it can be said that musical training affected the cognitive growth of children and had a positive effect on the verbal and non-verbal abilities of experimental group and finally on their IQ in comparison with the other group who listened to Mozart music.

This result is consistent with the studies of Schellenberg (2006, 2011a, 2011b, & 2011c), Ho, Cheung and Chun (2003), and also the study of Gromko and Poorman (1998) based on the positive and significant effect of music lessons on IQ. The positive effect of musical training on the verbal ability is consistent with the studies of Mirbaha et al(1993), Amirian (2011), Herrera et al. (2011), Schellenberg (2011b), Gromko (2005, 2004), Ho et al (2003), and Piro and Ortize (2009) as the training of music is along with the positive effect on the verbal abilities such as verbal reasoning, verbal perception, numerical rate, phoneme recognition, fluency, auditory perception, the sequence of letters, words and phoneme segmentation. The positive effect of musical training on the non-verbal abilities is along with the results of the studies by Ghasem Tabar et al.(2011), Schellenberg (2011b), Gromko(2004), Ho et al. (2003), Gromko & Poorman (1998), Rauscher et al. (1997) regarding that musical training affects the non-verbal abilities such as spatial reasoning, spatial-geometric relationships, mathematical skills and memorizing numbers. Group training of music showed the high social growth to Mozart group and this result is along with the study of Amirtash et al. (2006) as the cooperation of individuals in the group activities is effective in their social growth. In order to explain this finding, it can be added that being in the group activities require the cooperation and accepting the others which can be effective in the social growth of children. The final result is that music training has a positive and significant effect on some aspects such as verbal and no-verbal ability as well as intelligence and also the several aspects of social growth. The children who were participated in the musical classes accessed the high score of verbal and non-verbal abilities rather than the other who listened to Mozart music. The result of this study showed high score of cognitive growth to the control group (who listened to Mozart). The group of music training (in the field of sub-verbal tests) had a good performance to the Mozart group, however, in the sub-non-verbal tests (two of them), no significant difference was observed and in the domain of subtests of Mazes, Mozart group had a better performance to the former group and it can be due to two reasons: a) Music training affects the verbal abilities to the non-verbal ones, b) The effect of Mozart music is limited to the left hemisphere of brain which is related to the non-verbal abilities. Therefore, listening to Mozart increases the performance of children toward some of the non-verbal abilities. As a result, the music training is along with the social and cognitive growth of preschool children.

#### 5 Conclusions

Importance of education and training in preschool periods is presently taken into more account than before (YazdKhashti, 1998). Many research's indicated that the students who have passed the preschool period in relevant educational centers are equipped with more social compatibility than those who have not passed the same. Moreover, passing preschool period stimulates learning, educational progress and social

development. Education before elementary school through environmental enrichment enables children to achieve new perspective. Therefore, education before formal schools has found vital importance and many countries have focused their attention there on. Since children are in constant give-and-takes with the environment, the more enriched and user-friendly the environment, the higher the impression of the children from the environment. The interval from three to six years of age is the span in which the personality shapes. The prominent function of the education in preschool years is empowering children with social life. Among other objectives of education are physical-motional growth, language and discourse development, cognitive growth, and creative evolution (Yazd Khasti, 1998). Since musical training is effective on cognitive and social development of children especially in preschool periods, it can be taken advantage of in assisting children to grow socially and cognitively parallel with other preschool training courses.

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## THE IMPACT OF MANDATORY VERSUS VOLUNTARY AUDITOR SWITCHES ON STOCK LIQUIDITY IN IRAN ECONOMIC

<sup>a\*</sup>DAVOUD NOROOZZADEH, <sup>b</sup>RASUL NAZARI SEFIDAN, <sup>c</sup>SOHEILA AZARSHAH

<sup>a</sup>PhD Student in Industrial Management and Lecturer in Novin Ardabil Higher Education Institution, Ardebil, Iran

<sup>b</sup>Faculty Member of Sardroud Branch, Islamic Azad University (IAU), Sardroud, Iran

<sup>c</sup>Master of Science in Accounting

E-mail: <sup>a</sup>Noroozadeh.Doc@gmail.com,

<sup>b</sup>Nazari\_Sefidan@yahoo.com, <sup>c</sup>S.Azashab@yahoo.com

**Abstract.** The main objective of this study is to determine the effect of changing auditors for the mandatory audit on stock liquidity and the stock liquidity. Due to the nature and method used in this study, it is a descriptive correlational study. Research in terms of empiricist epistemology, it argued systems, inductive and from the study, is the archival field. The population of this research in terms of geographical scope is limited to firms listed in the Iran economic and the time included from the 2011 to 2015. The results showed that the liquidity of the stock of companies that change their auditors, the auditor materially from those companies that do not change, is different. The results showed that the liquidity of the stock of companies that Hsabrshan because System auditors alter, importantly than firms to change auditors, is different.

Key words: Mandatory Auditor, Voluntary Auditor, Liquidity

### 1 Introduction

Increasing economic entities, development of communication technology and the existence of conflicts of interest, creates monitoring needs. The issue of economic globalization and the information revolution, the state has even lost control (Boone, 1988). This situation makes the audit profession and gradually try to keep pace with technological change in order to remain behind moves to community needs. In this environment, users make decisions on various information such as financial information about businesses need (Acharya, 2005). Financial statements as financial information is the most important collections. But the important thing is the uncertainty about the reliability of information that stems from a conflict of interest. In addition to conflict of interest issues, including the lack of direct access to information users has resulted in demands for independent audit services. In fact, the role of auditors is to assess the quality of information for users (Amihud, 2002). De Angelo audit also emphasized that the mistake is discovered and reported, the independent auditor literally. Therefore, by definition, Angelo Di audit quality, increasing the ability to detect distortions in accounting and auditing and auditor independence assess the ability of the market. When De Angelo used these concepts, the basic assumption was that he market, which reflect the actual quality audit quality audit understands (Li, 2015). Obviously, depending on the place and role of audit firms in the decisions of users, the existence and independence of auditors and audit firms improve the working quality as key factors considered in the preparation of the audit report (Kwon et al., 2014). be audited. The bankruptcy of companies such as Enron, World Com and Parmalat as well as major banks such as Lehman Brothers, Northern Rock and in recent years has led to finger pointing to the accounting profession. In this case the requirement of periodic audit firms to change their employers as a solution to improve auditor independence was considered. Because many lawmakers believed in people, especially long-term relationships the auditor and auditee, the auditor oversight and audit quality decreases (Boone, 1988).

### 2 Literature Review

Accounting earnings are the most important indices of performance applied in many economic decisions such as stock evaluation, performance assessment, determination of managers' rewards and appropriation of retained earnings. These decisions affect the transfer of resources between different people and for this reason, they receive special attention in the capital market. In an economic environment with situations of conflicting

interests, including those between shareholders and managers, there is always the possibility that managers attempt to manipulate earnings. Management or manipulation of earnings is a deliberate action of managers to achieve desired financial results that may exist for various reasons. In the decision-making process, investors choose companies whose earnings are of higher sustainability and of greater quality indeed. In cases where entities are economically volatile, managers influence the earnings figures reflected in the financial statements leading to the positive views of those using financial statements, particularly investors. Because information is the life resource of market and the investors take the risk of investment in the capital market, they rely on the information published by the companies and invest therein. They require timely, understandable information in analyzable forms. Accordingly, the market will have to be able to manage earnings. The ability of market in detecting earnings management has two important implications. First, potential benefits reduce earnings management due to the weakening of altered components, and the second consequence is an increase in the costs of earnings manipulation. Additionally, the separation of ownership from management creates conflicts in the representatives, which may actuate managers towards opportunism and self-interest.

The role of liquidity in stock valuation, due to illiquidity risk concept stock crystallized in the minds of buyers that can cause investors to withdraw from the investment. Due to the importance of liquidity as well as important issues related to the auditor and the auditor, in this study attempted to examine the effect of changing the auditor be paid on stock liquidity (Liu, 2006; Justin et al., 2007).

Strategic product audits of financial statements for stakeholder credibility of financial information provided by the company. In today's uncertain world, firms of auditors is expected to provide professional services to consumers, to the delivery of financial condition and performance relative calm notify them by reducing uncertainty to provide claims management

So it can be said that in addition to psychological and social influences its economic role audit control as well. Increase in the number and complexity of financial reporting and accounting rules, disagreement between the auditor and the client increases (Choi, et al., 2015). Hence, there is criticism that the increase of auditor change in recent years, exacerbated the differences and the ability to play an important role accredited auditor for fiscal damage. On this basis, it is argued that the change of auditor reduces audit quality and thus by Atbar latest financial faces. That's why some regulatory authorities are worried that the increased frequency of audit, financial reporting reliability to the users (and not just to the financial statements of the companies change auditor) reduce. We find some evidence that the IFRS-related audit fee premium is lower in countries with stronger legal regimes.

### 3 Methodology

The research in the field of research funding is positive. According to the historic data is used to test the hypothesis, the research team tested overnight. is descriptive correlational study. Research in terms of empiricist epistemology, it argued systems, inductive and from the study, is the archival field.

The literature regarding the voluntarily or mandatory rotation of auditors is wide and approaches numerous aspects of this type of action: the auditing costs, the opportunities of such a rule, the implications on the quality of the accounting information, the investors' reaction, the difference between voluntarily and mandatory rotation, the probability of frauds, the effects on the auditor's independence and objectivity, the effects on the financial market, the difference between the auditors affiliated to

Big4 and the other auditors, the negotiation between the auditing companies with the clients.

As for the costs that are supported by the auditing company, and, implicitly, by the audited company, an accepted approach is that it ends up with their increase, justified by the efforts the auditing companies must make to understand the business and the organizational model of the audited company, as well as the effects of this initiation on the management of the audited company (PCAOB, 2011; Ho, 2010). GAO (2003) cites estimations of the auditing companies considering that the auditors' rotation will increase the auditing costs by 20%. Said & Khasharmeh (2014) propose a literature review and notice that, generally, one reaches an increase of costs, both for the audited companies and the auditors from 20% up to 50%. This, in fact, represents, a constant for the auditors that takes a company, irrespective of the fact that it is about rotation or about a mission received due to other reasons – the first audit year is always more expensive than the other years (GAO, 2003). Also, the existence of an indirect relation between the period of the engagement and the auditing costs was proven. On the other side, mandatory rotation can also have an effect, namely the

decrease of some auditing fees by the companies that wish to obtain a financial auditing mission (Barton, 2002 identifies such a situation for the Italian auditing companies).

#### 4 Results

We test the predictions in H1 and H2 by estimating a model that explains credit ratings in the final year of the mandatory regime (2003) and the initial year of the voluntary regime (2004) for the companies that keep the audit and the companies that opt out of the audit.

Hypothesis of 1: Liquidity stock companies change auditor, the auditor materially from those companies that do not change, is different.

H0: liquidity stock companies change auditor, the auditor materially from those companies that do not change, is not different.

H1: liquidity stock companies change auditor, the auditor materially from those companies that do not change, is different.

Table 1: The main research hypothesis

	Beta	s.e	t	Prob
SWITCH	-0.1738	0.054355	-3.1975	0.0000
Size	-0.3995	0.14276	-2.7984	0.0000
Lev	-0.3847	0.172357	-2.232	0.0000
ATURN	0.14685	0.05159	2.8465	0.0335
ROA	0.14789	0.049321	2.9985	0.0218
SGROW	-0.15524	0.339842	-0.4568	0.3564
QUICK	0.04458	0.04124	1.081	0.2987
RETVAR	0.2215	0.025593	8.6547	0.0000
FO	-0.0365	0.023989	-1.5215	0.2256
E	0.0987	0.112942	0.8739	0.5198
RET	0.14457	0.048911	2.9558	0.0227
C	0.1359	0.072888	1.8645	0.0674
R	0.34468	DW		2.0178444
R2	0.33985			
F-statistic	34.10856			
	0.000000			

#### 5 Discussion and Conclusion

According to compute beta coefficient ranges between +1 and 0 is for variables that show a positive relationship between the variables. In addition, Due to the significant level calculated for each of the predictors that were lower than the accuracy (0.05) is that it appears liquidity stock companies change auditor, the auditor materially from those companies that do not change, is different.

The size of audit firm has a significant influence on the relationship between earnings management and audit opinion. The level of error probability related to the null hypothesis indicating no effects of relationship between earnings management and audit opinion is 0.14, which is greater than 0.05; so null hypothesis is confirmed with a confidence level of 0.95. It can, therefore, be concluded that audit firm size has no significant effects on the relationship between earnings management and audit opinion.

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## THE IMPACT OF EMOTIONAL ATMOSPHERE OF FAMILY AND INITIAL SUPPORT OF PARENTS ON SELF-REGULATION AND ITS STRATEGIES IN HIGH SCHOOLS STUDENTS OF LAMERD CITY

<sup>1</sup> PARVANEH DOODMAN

<sup>a</sup> Faculty of Economics and Social Sciences, PNU mailbox, 19395-3697, Tehran, Iran

Email: "fdoodman@gmail.com"

**Abstract:** The aim of this study is evaluation of amount of prediction of children self-regulation dimensions (Metacognitive, cognitive and motivational strategies) by dimensions of family emotional atmosphere and initial support of parents. The study sample were included 200 high school students in Lamerd city that from this number 100 were girls and 100 were boys from different fields, the students were selected by random cluster sampling, results of multiple regression showed that among the eight subscales of emotional atmosphere of family, Love, encourage and caress in family are able to prediction self-regulation. Love between parents and children is able to prediction cognitive strategies; and sense of security and common experiences between parents and children is associated with metacognitive strategy and motivation.

**Keywords:** emotional atmosphere of family, initial support of parents, self-regulation

### 1. Introduction

The family is the smallest social unit, this social unit is incidence origin of human emotions and focus of the most intimate interpersonal relationships and interactions. It's important is to the extent that Health and development of any society is dependent on the health and development of families (Satir, 1988). Family is like any social system with basic needs, Among these needs in Psycho - social aspects can noted such as feelings of worthiness, physical security, intimacy, dependence and belonging, Sense of responsibility, need motivation and others confirmation, Need to happiness and success and spiritual needs. If members of society especially parents be aware from effects of family emotional atmospheric and their performance on health and prosperity of the children Will try to provide relaxed, balanced and supportive atmosphere to their children (Navabi Negad, 2001). Initial support of parents is said in different and various forms to children and contains warmth and affection, availability of parents, the relationship between parents and children and sacrifice (Sillick and Schutte, 2006). In terms of Bandura learning by observing own behavior and consequences of behavior, is the most effective way to perception of behavior and Pattern-making of people from environment are part of learning environment determinative, Thus self-regulation strategies can be taught through observing patterns which applies this strategy (Talebi Marand, 2005). One of the environment factors influencing on the level of the individual Self-regulatory, is family. Family is the first institutional and global public systems that is necessary to meet Vital and emotional requirements of Human and Survival of the community. An important factor in providing health and mental health of children, is adequate and balanced relationships of parents with them (Baumrind, 1992). When mothers, have good insight into the performance of their children, she was confident about their abilities and are valued for school assignments, Children also will have a positive motivational beliefs and will affect to self-regulation which also includes motivational variables, Karreman et al. (2006), in their meta-analysis on relationship between style of parenting and self-regulation, point out to this results that negative control of parents has negative impact on children's self-regulation and positive control has positive and constructive impact on children's self-regulation. Since training programs are effective in raising the level of self-regulation in children's, Parents and teachers play an important role in the development of this feature (Dignath et al. 2008). In terms of Schunk et al. (2008), self-regulation is process in which students become active and to achieve knowledge and behaviors that systematically pushing them towards their goal. In the field of family emotional atmospheric effects and Initial support of parents, several studies have been done on amount of self-regulation and its dimensions among Stright et al. (2001), have concluded that Interaction and training of parents have important

role in predicting children's self-regulated learning. Metacognitive and strategic training of parents and their modeling helps children to learn cognitive knowledge and thus improve self-regulation. Hosseini and Samani (2011), have said, Warm and acceptor behaviors of parents have follow favorable developmental consequences for children, while rejecting behaviors and hostility of parents have follow unpleasant for the children. Harris et al. (2007), achieved to this conclusion that one of the most important factors in upbringing of children, is creating mental health in them. If be created field of mental health in the family, parents will have children with character, balanced, consistent, sentimental, social, self-confidently, responsible and logical. Nahidi, (2010), showed that there is relationship between family emotional atmospheric with formation of personality traits of hardness and self-actualization of adolescents. So considering to important role of family and emotional atmosphere prevailing in students' self-regulation, this research will examine relationship between Initial support of parents and families emotional atmosphere on self-regulation and its dimensions in high school students in Lamerd city. In addition, is following to determine, which one of dimensions of family emotional atmosphere are significant predictors for self-regulation and its impacts on students.

### 2. Methodology

Statistical population of current study were boys and girls high school students in the city Lamerd. The number of studied sample were included 200 students that from this number 100 were girls and 100 were boys from different fields, the students were selected by random cluster sampling and questionnaires were given to them as a group to respond to questions. 3 measurement tool was used in this study.

**2.1. Initial support of parental questionnaire:** This questionnaire has been made in 2004 by Sho and others, this questionnaire is including six questions that measure emotional support received from parents in childhood. For Scoring each phrase, degree between 1 (never) to 4 (always) awarded to each participant. Scores range is between 6 to 24. In this study of Shu and others internal consistency has been reported higher than 0.90. Since no information was not available about reliability of this scale in Iran, Therefore, reliability of this questionnaire were assessed in present study, Cronbach's alpha method was used to determine the reliability and coefficient obtained equal to 0.87.

**2.2. Family emotional atmosphere questionnaire of Hill Berne:** this questionnaire has been made in 1964, for assessing love in child- parent's interactions. This questionnaire has 16 questions and Measures 8 derivative (Love, caress, confirmation, gift, common experiences, sense of security, trust, encouragement) in this questionnaire questions are Five-choice (very low, low, medium, high and very high) and subjects according to their sense marks one of them. Scoring is variable from 1 to 5, this means that awarded to very low option, score 1, low 2, medium 3, high 4 and very high 5. High scores than average represent appropriate emotional atmosphere between family members and lower scores than average showed weak emotional atmosphere among family. In a study in Iran, reliability coefficient of cronbach's alpha and test-retest, respectively obtained 0.87 and 0.83 (Barani, 2014). In this research Cronbach's alpha obtained for family emotional atmosphere and its eight dimensions 0.67 to 0.9.

**2.3. Self-regulation questionnaire of board and colleagues:** The first factor consists of 7 items constitute dimension of metacognitive strategies, the second factor contains 9 items, evaluates dimension of cognitive strategies and the third factor contains three items constitute dimension of motivational

dimension. In this study Cronbach's alpha obtained for self-regulation and its three dimension 0.68 to 0.75. in this research Initial support of parents and family emotional atmosphere and eight dimensions of Love, caress, confirmation, gift, common experiences, security, trust as an predictive variables and self-regulation variable and Metacognition, cognitive and motivational dimension were considered Criterion variables.

Correlation and multiple regression methods were used based on purpose of this study which is to examine the relationship between family emotional atmosphere and initial support of parents with amount of self-regulation and its dimensions in students.

**3. Results and findings**

Descriptive findings of this study include mean and standard deviation of the samples, for family emotional atmosphere scale and its dimensions, the scale of initial support of parents and scale of self-regulation and its dimensions have been presented in Table 1. Among the eight dimensions of emotional atmosphere scale, highest mean was relating to sense of security variable (7.48) and the lowest mean was relating to caress (6.45).

Table 1. Mean and standard deviation of subjects in studied variables

standard deviation	Mean	variable	standard deviation	Mean	variable	scale
			54.12	48.55	Total score of family emotional atmosphere	
05.2	46.6	gift giving	13.2	01.7	Love	emotional atmosphere
94.1	33.7	Encourage	29.2	45.6	caress	
04.2	35.7	Trust	88.1	91.6	Corroborate	
17.2	48.7	Feeling of security	34.2	51.6	Common experiences	
88.3	49.22	Metacognitive strategy	62.8	24.61	Total score of self-regulation	self-regulation
22.2	83.8	Motivation strategy	41.5	92.29	Cognitive strategy	
			43.4	88.14	total score of Initial support of parents	initial support of parents

Table 2. The correlation coefficient between family emotional atmosphere and its dimensions with self-regulation, metacognition, cognition and motivation

Criterion variables (motivation)		Criterion variables (cognition)		Criterion variables (metacognition)		Criterion variables (self-regulation)		
significance level	correlation coefficient	significance level	correlation coefficient	significance level	significance level	significance level	correlation coefficient	
005.0	271.0**	000.0	301.0**	000.0	327.0**	000.0	333.0**	family emotional atmosphere
027.0	156.0*	000.0	358.0**	001.0	227.0**	000.0	318.0**	Love
036.0	124.0*	000.0	252.0**	001.0	226.0**	000.0	273.0**	caress
186.0	094.0	044.0	142.0*	001.0	223.0**	018.0	167.0*	Confirming
017.0	224.0*	083.0	123.0	000.0	287.0**	002.0	213.0**	Common experiences
440.0	055.0	004.0	200.0**	002.0	215.0**	003.0	209.0**	gift giving
046.0	117.0*	000.0	295.0**	001.0	230.0**	000.0	286.0**	Encourage
034.0	125.0*	001.0	223.0**	000.0	258.0**	001.0	244.0**	Trust
021.0	168.0*	004.0	202.0**	000.0	270.0**	000.0	262.0**	Sense of security

\*\*Significant at 0.01 \*Significant at 0.05

As is seen in Table 2, there was significant correlation between at level of confidence 0.01 among score of self-regulation and family emotional atmosphere of students. This significant relationship was observed on all aspects of family emotional atmosphere. The highest correlation between dimensions was related to love (0.318) that was significant at 0.01 level. There was significant correlation between at level of confidence 0.01 among total score of self-regulation with family emotional atmosphere and Initial support of parents. This significant relationship was observed on all aspects of self-regulation. The highest correlation between dimensions in family emotional atmosphere and Initial support of parents Related to metacognition dimension was with amounts of correlation 0.327.

As is seen in Table 3, there was significant correlation between at level of confidence 0.01 among metacognition and family emotional atmosphere of students. This significant relationship was observed on all aspects of family emotional atmosphere. The highest correlation between dimensions was related to love (0.318) that was significant at 0.01 level. The results showed that eight dimensions of the family emotional atmosphere explain 10.5% of metacognition variance and common experiences and Sense of security dimensions have predictive power to student's metacognition and explain respectively 20.4 and 17.2 percent of this variance and other dimensions of family emotional atmosphere were not significant predictors in the model. There

was significant relationship between at level of confidence 0.01 between cognition and family emotional atmosphere of students. This significant relationship was observed on all aspects of family emotional atmosphere except common experiences. The highest correlation between dimensions was related to love (0.358), the results showed that eight dimensions of the family emotional atmosphere only explain 12.8% of cognition variance and love dimensions has predictive power to student's cognition and explain 35.8 percent of this variance and other dimensions of family emotional atmosphere were not significant predictors in the model.

There was significant relationship between at level of confidence 0.01 between motivation score and family emotional atmosphere of students. This significant relationship was observed on all aspects of family emotional atmosphere except confirming and gift giving. The highest correlation between dimensions was related to common experiences (0.224) that is significant at 0.01 level. The statistical analysis results showed that eight dimensions of family emotional atmosphere explain 8% of motivation variance and Sense of security and common experiences dimensions have predictive power to students motivation and explain respectively 27.9 and 23.1 percent of this variance and other dimensions of family emotional atmosphere were not significant predictors in the model.

Table 3. Stepwise multiple regression analysis to predict metacognition based on the dimensions of family emotional atmosphere

significance level	Test statistic (F)	beta Value	coefficient of determination	Predictor variables	Instant prediction Variable
000.0	557.11	204.0	082.0	common experiences	
		172.0	105.0	Sense of security	metacognition

#### 4. Discussion

This study is done with aimed to evaluate predictive value of children's self-regulation and metacognitive, cognitive and motivational strategies by dimensions of family emotional atmosphere (Love, caress, confirmation, gift, common experiences, sense of security, trust, encouragement). Study results showed correlation coefficient was significant between the total score of family emotional atmosphere and initial support of parents with student's self-regulation. This significant relationship was observed in all dimensions of self-regulation. According to the results of this study, can confirmed this assume that family emotional atmosphere and initial support of parents are able to predict self-regulation, metacognition, cognitive and motivational. Results of this study were consistent with the results Stright et al., (2001). However, in this study, impact of family emotional atmosphere have been studied on some of self-regulation variables and research was not found that have all three variables, at explaining the confirmation of this hypothesis. It can be said, confirming impact of family emotional atmosphere and initial support of parents are not unexpected on self-regulation and its dimensions. In Investigate relationship of family emotional atmosphere, including (Love, caress, confirmation, gift, common experiences, sense of security, trust) with Self-regulation and its strategies Such as metacognition, cognition and motivation in students, in this study the results showed that there is significant relationship at confidence level 0.01 between score of Self-regulation and its strategies with family emotional atmosphere of students. In self-regulation and metacognition strategies, this significant relationship was observed in all dimensions of family emotional atmosphere. In cognitive strategy there is this significant relationship about all dimensions of family emotional atmosphere except common experiences. In Motivation strategy also this significant relationship was observed in all dimensions of family emotional atmosphere except confirming and gift giving. Stepwise multiple results of regression analysis to determine predictor of self-regulation, metacognition, cognitive and motivational from family emotional atmosphere dimensions, Showed that the

dimensions of love, Encourage and caress have predictive power self-regulation and dimensions of common experience and Sense of security have Predictive power metacognition and dimension of love have predictive power cognitive and dimensions of sense of security and common experiences have predictive power Motivation for students. Obtained results of this study, confirm findings of research that Inside and outside the country have shown significant relationship between family emotional atmosphere and self-regulation of Students (Kharrazi and Kareshki, 2008; Najjar Pour). Coordination between finding of this study and the previously research indicated that there is Positive and significant relationship between family emotional atmosphere and self-regulation.

#### 5. Conclusion

It can be said that many problems of growth and education and training of children have root in emotional space governing the family and solving these problems is done by helping to growth and awareness of parents. It can be concluded where parents investigate to emotional needs of their children within reasonable limits and with knowing the basics of education and training and how Personality development in each stage of their growth, they deal with their children, will be witness their Self-regulatory. It is obvious that necessary condition for having attention, motivation and willingness to learn, is to meet their basic needs in family environment, especially by parents. Unfulfilled or incomplete satisfaction of physiological needs and psychological needs such as need for security, love and respect leads that children at school are undergoing anxiety and insecurity and instead of problem solving and addressing to cognitive tasks, be more distressed their Biological and emotional needs and also Insecure and threatening conditions of classroom space.

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