

EXAMINATION OF ORGANIZATIONAL INTELLIGENCE COMPONENTS AND KNOWLEDGE MANAGEMENT IN LAVAN OIL REFINING COMPANY

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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		0.00
Number	148	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		0.119
Number	148	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		0.046
Number	148	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		0.034
Number	148	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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