

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

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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.

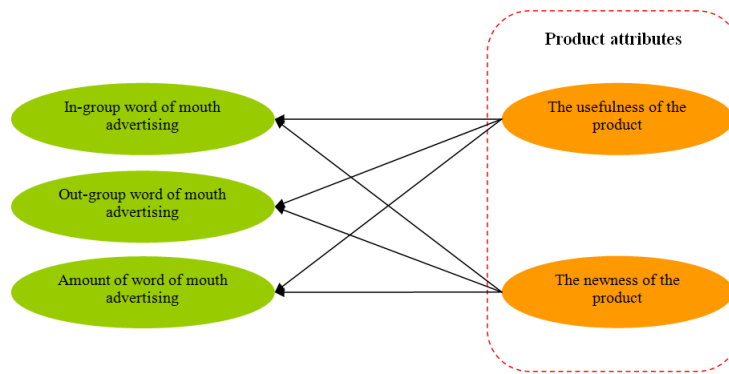


Figure 1. Conceptual framework of the research

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 on 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 from 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 spss₁₆ software. Therefore, it was used linear regression to test each hypothesis in the research.

4.2. Testing hypotheses

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

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.

accuracy of using regression model is confirmed for all hypotheses.

Table 3. Summery results of linear regression test for testing hypotheses

Hypothesis		R ²	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.

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.

Therefore, according to the research results:

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