



The impact of consumer's innovation on acceptance of new product

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The impact of consumer's innovation on acceptance of new product

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ABSTRACT

The present study aims to investigate the impact of consumer's innovations on acceptance of a new product. The present research is applied in terms of purpose, and is a descriptive survey type in terms of nature and method. The statistical population of the present study is the buyers of Amir Great Commercial Complex in Mashhad within a twenty days period. In order to achieve sample size, available non-random sampling method has been used. For this purpose, the principle of 5-10 times the number of observed variables was used; and in order to achieve sufficient amount of Hoelter index, AMOS software was used and 210 persons were considered as the statistical sample. The data collection tool was a researcher-made questionnaire. Its validity and reliability were examined and confirmed by exploratory-confirmatory factor analysis and Cronbach's alpha, respectively. In order to analyze the data and test the hypotheses, SPSS and AMOS software programs were used and the results showed that cognitive innovation of the consumer impacts acceptance of new product; also, emotional innovation of the consumer impacts acceptance of new product. At the end, some recommendations have been presented.

Keywords: consumer's innovation, emotional modernism, cognitive modernism, acceptance of new product



1. Introduction

Today, identification of consumers' behavior is of great importance to managers of organizations. Due to the increase of competition in markets and the increase of demand for diversification in consumers, the need for new products and services has had a significant growth. Innovation and supply of new products plays an important role in growth and profitability of companies, and the key for success and profitability of the new products of a company is identification of consumers who are potentially considered as the primary buyers of market products. These types of people are known as modernist consumers in the market, and identification of the factors affecting the acceptance of this group of customers plays an important role in success of supply of new products of companies to the market (Seltene and Brunel, 2008).

On the other hand, in order to create new markets and change dynamicity of value in a competitive market, companies need to develop new products more than one-time or incremental products. New products are products which are created as a result of market cessation or technological breakdowns, but customers do not need to receive significant trainings in order to use them and create value for the product. New products are a development opportunity for a stronger competitive position than the gradual innovations. New products are necessary for growth and profitability of companies as well as providing their competitive advantages, and help them in the battle of strategic positioning (Vand Castle, 2010: 3). Also, innovative consumers are an important part of the market for marketers, and the income resulted from new products that innovative consumers have accepted them plays an essential role for many companies (Coward, Fox and Wilson, 2008: 1112). Despite high importance of paying attention to consumers' innovation for marketers and increasing research in the field of innovation, but most of the studies conducted in the area of acceptance of innovation had been in terms of organizations and not the consumers (Lee et al., 2003). Therefore, in the present study the impact of consumer's innovations on acceptance of new product has been examined.

1.2. Theoretical framework of research

Consumer's innovation: the concept of innovation refers to the differences between individuals and categorization of people's response to new things. In the American Marketing Association Website Dictionary, the definitions of innovation are as below:



Definition of innovation in terms of consumer's behavior: Consumer's innovation is considered as a personality trait and is defined as the amount a consumer accepts and buys new products and services (Amirshahi et al., 2011). Consumer's innovation is an intrinsic personality trait which is created based on various factors such as social and economic factors including income and social progress, or personality aspects such as cognitive desire and rationalization. Modernism describes the response to new things, and the difference between these responses is arranged such that it includes very positive attitude to very negative attitude (Foxall and Goldsmith, 2003). Seeking for new and emerging things by the consumer is rooted in the individuals' being innovative. Innovative consumers tend to gain information about new and different products (Sreejesh, 2011).

1.2.1. Cognitive modernism:

Cognitive consumers mostly have higher age and education. They pay attention to most of the information distributed among mass media; have much tendency to read the information on packaging, magazine and newspaper advertisements, and perform most of their identification during the purchase; for example, in order to find their desired good, they search in showcase of stores and look at them (Hirschman, 1984; Van Kathraman and Mc. Einz, 1985; Park, Yu and Zhou, 2010). Mental stimulation in order to acquire new experiences and make new decisions motivates the consumer having cognitive modernism. People, who use cognitive modernism, enjoy activities such as thinking, problem solving, puzzle solving, and other mental efforts. They seek gaining new experiences that stimulates and excites their mental activities (Hirschman, 1984; Zuckerman, 1979; Park, Yu and Zhou, 2010).

1.2.2. Emotional modernism:

Emotional consumers are mostly younger men. They prefer new experiences that stimulate their emotions. New experiences such as imaginative power, imagination, and fantasizing which are created inside and makes it possible for them to create new excitements and adventurous activities externally (Park, Yu, and Zhou, 2010: 438)

1.2.3. Acceptance of new product:

In order to define product acceptance, still there is no acceptable definition approved by all previous researchers (Huh and Kim, 2008). In addition, many experimental studies show the profitability of acceptance of new product in measuring consumer's innovation, and



acknowledge that acceptance of new product includes the elements of consumer's innovation (Rogers, 2003; Tellis et al, 2005; Im et al, 2003; Fell et al, 2003).

Acceptance of new products is often evaluated in two main methods: measuring ownership level and relative acceptance time. Ownership level in the literature is often measured through recording new products belonging to sample consumers from a set of recent arrangements (Midgley and Dowling, 1978). The relative acceptance time is evaluated by "measuring the length of time needed for a specific percentage of users of a system in acceptance of innovation" (Rogers and Shoemaker, 1971). Im et al. (2007) show that using a second root transformation reduces the impact of remote cases and causes better description of the consumers who accept earlier and those who are the owner of the same number of products but are among the next acceptors (Im et al, 2007; Tellis et al, 2005).

1.3. Review of literature

Faghih Zadeh and Mahmoodi (2016) in their study titled: "The impact of consumer's modernism on the attitude towards product innovation" showed that consumer's modernism has a positive impact on the attitude about product innovation, and among the dimensions of consumer's modernism, the dimension of emotional modernism has the highest impact on the attitude toward product innovation. In his research, Effectiveness of Consumer Innovation in Accepting a Really New Product, Chivi Chao et al. (2012) in their study titled: "the impact of consumer's innovation in acceptance of really new product" found that environment-specific innovation compared to consumer's innovation has a higher impact on acceptance of such products. Also the relationship between environment-specific innovation and acceptance of really new product, although being positive, is still very insignificant. Mehrabi and Maroof Moshat (2014) in their study titled "Examining the factors affecting consumer's attitude toward service innovation (case study of users of Parking-Meter in Ghazvin city)" found that the perceived easiness of use, awareness of fashion, and fair price have a positive impact on consumer's attitude toward service innovation, while satisfaction with the existing services, and consumer's risk-aversion have a negative impact on consumer's attitudes toward service innovation. The findings of the research by Amirshahi et al. (2011), entitled "The impact of consumers' modernism on purchase decision making styles" showed that cognitive modernism has a direct relationship with sensitive to excellent quality and perfectionist purchase decision making style; and emotional modernism has



a direct relationship with brand-sensitive, modern-seeking, fashionable, and entertainment-seeking purchase decision making style. These findings help managers to have a deeper insight about development and marketing of new products. The interactions in marketing, brand management and new products marketing must be based on attracting two different types of innovative consumers (cognitive and emotional) and their purchase decision making styles.

1.4. Conceptual framework of research

In line with the literature review and the aim of study as described at the start of the paper, the conceptual framework of the study was configured as demonstrated in Fig. 1

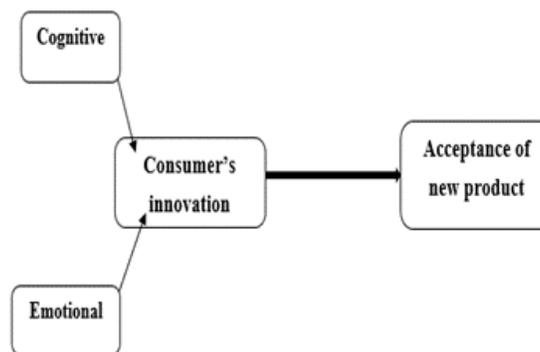


Figure 1. Conceptual model of research

1.2. Research hypotheses

The following Hypotheses were created for this study based on the conceptual framework for the study and literature review:

1. Consumer's cognitive innovation affects acceptance of a new product.
2. Consumer's emotional innovation affects acceptance of a new product.

3. Research methodology

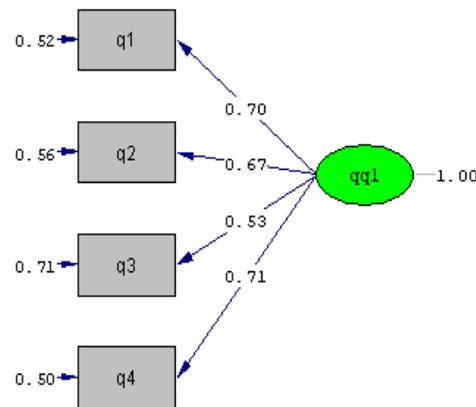
The present research is applied in terms of purpose, and is a descriptive survey type in terms of nature and method. The statistical population of the present study is the buyers of Amir Great Commercial Complex in Mashhad within a twenty days period. In order to achieve sample size, available non-random sampling method has been used. For this purpose, the principle of 5-10 times the number of observed variables was used; and in order to achieve sufficient amount of Hoelter index, AMOS software was used, and 210 persons were considered as the statistical sample. The data collection tool was a researcher-made questionnaire. In order to determine exploratory validity of this research, construct validity method was used. As was expected, the



sample's adequacy amount (KMO) was 0.749 and the significance number of Bartlett's sample sphericity test in exploratory factor analysis by SPSS were 1921.991 and 0.0001, respectively, which indicates that the sample size is appropriate for performing factor analysis.

Factor analysis of the variable of consumer's innovation

The results of confirmatory factor analysis of the questions of this variable show that the obtained load factors are higher than 0.3 and the 4 questions related to this variable can be categorized in a separate factor. Therefore, the data of this hidden variable are calculated from the mean of questions. The following figure indicates the results of confirmatory factor analysis for the variable of consumer's innovation in standard estimation state.

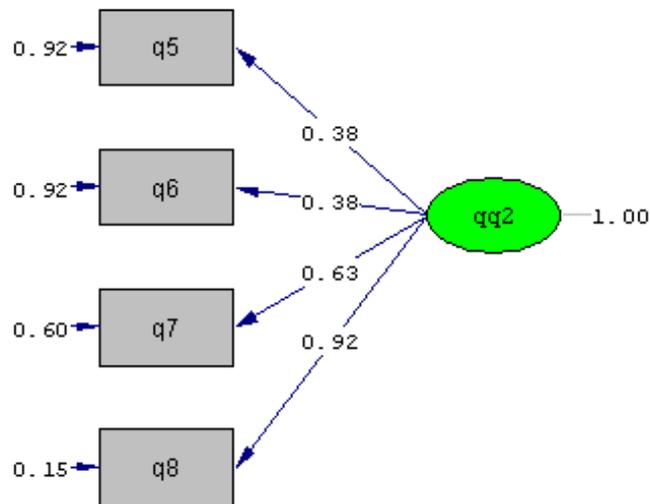


Chi-Square=67.92, df=2, P-value=0.00000, RMSEA=0.320

Figure 2. confirmatory factor analysis of consumer innovation variable

Factor analysis of the variable of cognitive modernism

The results of confirmatory factor analysis of the questions of this variable show that the obtained load factors are higher than 0.3 and the 4 questions related to this variable can be categorized in a separate factor. Therefore, the data of this hidden variable are calculated from the mean of questions. The following figure indicates the results of confirmatory factor analysis for the variable of cognitive modernism in standard estimation state.

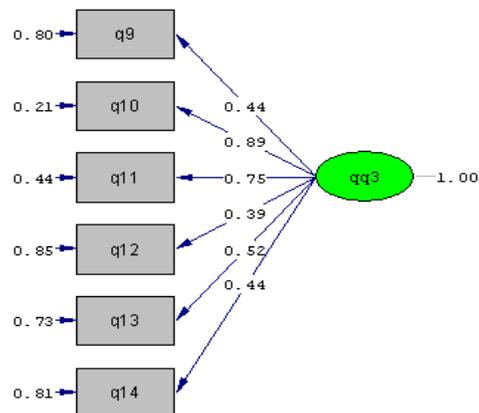


Chi-Square=16.21, df=2, P-value=0.00030, RMSEA=0.149

Figure 3. confirmatory factor analysis of cognitive modernism variable

Factor analysis of the variable of emotional modernism

The results of confirmatory factor analysis of the questions of this variable show that the obtained load factors are higher than 0.3 and the 6 questions related to this variable can be categorized in a separate factor. Therefore, the data of this hidden variable are calculated from the mean of questions. The following figure indicates the results of confirmatory factor analysis for the variable of emotional modernism in standard estimation state.



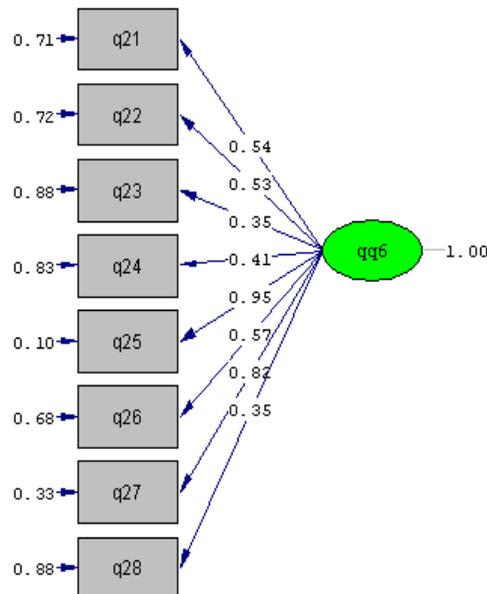
Chi-Square=185.40, df=9, P-value=0.00000, RMSEA=0.247

Figure 4. confirmatory factor analysis of emotional modernism variable



Factor analysis of the variable of acceptance of new product

The results of confirmatory factor analysis of the questions of this variable show that the obtained load factors are higher than 0.3 and the 8 questions related to this variable can be categorized in a separate factor. Therefore, the data of this hidden variable are calculated from the mean of questions. The following figure indicates the results of confirmatory factor analysis for the variable of acceptance of new product in standard estimation state.



Chi-Square=454.53, df=20, P-value=0.00000, RMSEA=0.260

Figure 5. confirmatory factor analysis of the variable of acceptance of new product

In this research, Cronbach's alpha method, that in most researches is the basis of measuring reliability, has been used. The reliability of research questionnaires has been calculated based on Cronbach's alpha coefficient that the results are as follows in [Table 1].

Given the appropriateness of alpha coefficients, internal validity (reliability) is confirmed.

4. Testing the research hypotheses

Testing the assumption of variables being normal

Before determining the type of test used, especially in comparative tests, it is necessary that we make sure about the variables being normal [Table 2].

Examining research hypotheses

Examining the first hypothesis:



1. Consumer's cognitive innovation affects the acceptance of a new product.

In examining the effects of the variable of consumer's innovation on acceptance of a new product, route coefficient has been estimated as 0.669. Considering that t-value is equal to 11.966 (In order for a coefficient to be significant, its significance number should be out of the range of -1.96, 1.96, that in this case, it is smaller than the significance level of 0.05), so it can be concluded that this route coefficient is significant at the error level of 0.05; it means that consumer's cognitive innovation has a significant impact on acceptance of a new product. Therefore, hypothesis 1 is confirmed [Table 3].

Examining the second hypothesis:

1. Consumer's emotional innovation affects acceptance of a new product.

In examining the effects of the variable of consumer's emotional innovation on acceptance of a new product, route coefficient has been estimated as 0.364. Considering that t-value is equal to 370.2 (In order for a coefficient to be significant, its significance number should be out of the range of -1.96, 1.96, that in this case, it is smaller than the significance level of 0.05), so it can be concluded that this route coefficient is significant at the error level of 0.05; it means that consumer's emotional innovation has a significant impact on acceptance of a new product. Therefore, hypothesis 3 is confirmed [Table 4].

5. Discussion and conclusion

The present study examined the impact of consumer's innovativeness on accepting new product. The results of testing the hypotheses showed that consumer's emotional modernization affects acceptance of new product. This result suggests that the more the consumer is innovative and modernist, the more willingness he has to accept and purchase and use a new product. The obtained result is consistent with some previous studies, such as Chao et al. (2012) and Faghieh Zadeh et al. (2016) and Hossein et al. (2014). The findings also indicate confirmation of the second hypothesis about the impact of consumer's cognitive innovation on acceptance of new product. It means that people with emotional modernism usually accept products that stimulate them based on their emotions and experiences; and the positive emotions of these people toward new products cause them to have a positive attitude toward accepting new products.

Recommendations



- Carrying out market research in order to identify consumer's emotions and cognitions and discover the customers' hidden demand for supply of new and innovative products for them.
- More attention to emotional and cognitive advertising in order to stimulate and encourage the innovative consumer more to accept and purchase new products

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Table 1. Cronbach's alpha coefficients for research variables

Number	Title of questions	Alpha coefficient
1	Consumer's innovation	0.7091
2	Cognitive modernism	0.7597
3	Emotional modernism	0.7615
4	Acceptance of new product	0.8123

Table 2. Kolmogorov-Smirnov test for research variables

Number	Research variables	Descriptive results		Kolmogorov-Smirnov test		Result
		Mean	Standard deviation	Z statistic	Significance level	
1	Consumer's innovation	8.8	0.61	0.476	0.977	Normal
2	Cognitive modernism	6.8	0.82	0.426	0.993	Normal
3	Emotional modernism	8.5	1.1	0.722	0.674	Normal
4	Acceptance of new product	7.8	1.36	0.542	0.931	Normal

Table 3. route coefficient between two variables of consumer's cognitive innovation and acceptance of new product

Hypothesis	Route coefficient	t-value	Test result
Consumer's cognitive → innovation acceptance of new product	0.669	11.966	confirmed

Table 4. route coefficient between two variables of consumer's emotional innovation and acceptance of new product

Hypothesis	Route coefficient	t-value	Test result
Consumer's emotional → innovation acceptance of new product	0.364	2.370	confirmed