Investigation of the Influence of Consumers' Behavioral Economic Model on Selection of Brand in Yas Store

Hossein Vazifehdoost[1]., Seyyed Ahad Raeiszadeh[2]

[1,2]Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran.

ABSTRACT

Economic human and his or her behavioral features is one of the main subjects of study in theorizing economy. Economy is a human science and requires recognition of human as the pivot of decisions in order to model, predict, make policies and do all its functions. The present research aims to investigate the influence of consumers' behavioral economy model on selection of brand in Yas Store. Variables under study in this research include price elasticity, expected utility, mental perceptions and customer preferences and their impacts on brand selection. The statistical population of the present research included all customers of Yas Store. Questionnaire was used for data gathering. Furthermore, data were analyzed by means of structural equations modeling technique and PLS software. Finally, all research hypotheses were verified considering the statistical outputs.
KEYWORDS: brand Eigen value, price elasticity, expected utility, mental perceptions and customer preferences.

INTRODUCTION

In every organization, either a production or a service one, the main factor in survival of an organization is customer and an organization will not guarantee its long-term growth if it cannot attract customers' loyalty (Vazifehdoost, Rahnama and Mousavian, 2014). In fact, before the middle of the 20th century, economists believed firmly in psychological ideas. Erving Fischer and Vilfredo Pareto discussed the fact that how people think and feel and Keynes justified his consumption theory by means of psychology. However, after that, psychological discussions were eliminated from economic works and many economic topics like discounted utility by a constant rate, inter-period selection, models related to uncertainty conditions and so on were accepted as scientific norms which were free from psychological test. With this in mind, behavioral economy entered an area which was considered as given and evidence axiom by economists. However, from behavioral economy viewpoint, there is no axiomatic assumption unless there is some evidence for it. Of course, this does not mean that behavioral economy falls into scientific anarchism. In fact, although behavioral economy is not adherent to axioms and assumptions and tries to test hypotheses, it makes use of assumptions when it cannot do such a test. Therefore, in any behavioral economy paper, one or two neo-classic assumptions are changed and an analysis is presented. Behavioral economy accepts neo-classic economy and presents theories y changing assumptions which have been based on gathered evidence. This theory extracts its scientific aspect from Popperian falsifiability like neo-classic theories. This means that behavioral economy accepts a neo-classic method which is based on individualism, maximization of utility, balance, efficiency and so on (Sanjabi, 2001). The main flow of economy and especially neo-classic economy accepted some principles like maximization of personal benefit and rational behavior after John Stewart Mill and ignored anthropological investigations. Some economists consider these inflexible assumptions as the cause for some economic frustrations in scientific fields. Behavioral economy tries to fill this gap by different methods (KhorramShahi, 2001). Today, behavioral economy has advanced by contribution of psychology developments. Behavioral economy is a relatively new branch of economic knowledge which aims to promote economic knowledge and match economic models with external realities. It has received a lot of attention within the past few decades. The main element of behavioral economy is psychological perspective and it has been made up of economy and psychology combination. However, it must be noted that some followers of behavioral economy school step beyond use of psychological theories and use sociology and anthropology theories for explaining economic dynamism. The statistical population of the present research included all customers of Yas Store in Tehran City. In the present research, we try to find an answer for this question: "how an appropriate behavioral economy model influences consumers' selection of brands?

THEORETICAL LITERATURE
Behavioral economy

The present era is full of unpredictable transformations and companies are confronted with the harshest competitive conditions due to factors like unclear borders of markets, fragmentation of markets, short products

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*Corresponding Author: Hossein Vazifehdoost, Department of Business Management, Science and Research Branch, Islamic Azad University, Tehran, Iran. Email: Vazifehdust@yahoo.com

lifecycles, and rapid changes in customers' purchase desires and awareness of customers (Tavanazadeh and Aligholi, 2014). Before 1930s, common economic literature like Adam Smith, Keynes, Marshal, Fischer and … works are full of psychological concepts. After conversion of these concepts into mathematical formulas by subsequent economists, psychological aspects of economy are being consigned to oblivion. Smith, who is famous for his work "wealth of nations" states that: "people eat their meals not for goodwill of butcher, brewer or baker but also for their being profit-seeking." However, he has discussed about aspects of personal ethics in which people are worried about others in one of his latest books called "theory of ethical feelings" but the question is that why this book was not as famous as "wealth of nations"? in 1970s, psychology experts started to study individuals' economic decisions and their judgments. These studies proposed some methods different from that of Simon's method. They used "maximization of expected utility" and "Bayesian probability rules" methods as criteria for judgment. In the end, they used compatibility with or deviation from these criteria as means for reasoning and making hypotheses on cognition mechanisms (Grampp, 1987). Important works of psychology in this classification were conducted by Ward Edwards in 1950s and after that by Daniel Kahnemn (Amos Toreski), Fisch Hoff and others. Since these studies were mainly based on psychology principles and structures, they managed to be written in simple terms. These classifications of psychology paved the way for bounded rationality model which was more compatible with economic standards in relation to extreme deviations which Simon beard in his mind. Most behavioral economic concepts were obtained from combination of these individuals' works which had more moderate viewpoints than Simon (Sanjabi, 2001). Behavioral economics is one of the relatively new branches of economics which is mainly aimed to promote economic knowledge and match economic models with external realities. This branch of economy which has many followers today has been introduced to Iran very badly and inappropriately so that economists have wrong and odd inferences and perceptions of this branch of economics (KhorramShahi, 2001). Behaviorl economics substitutes rigid rationality assumptions of economic modeling with assumptions which are compatible with psychological understanding. Of course, social sciences scientists criticized economic models because of high rationality and wisdom assumptions and economists have always defended these models as useful and good estimations. The only interesting question is that "how to combine economics with psychology?". Herbert Simon who introduced bounded rationality in 1950s showed that individuals' theory in economics should be likened to perceptional psychological theories which determine segmented models or mechanisms. Economists never use this proposal. This may be because Simon theory was presented exactly when economists were finding ways for description of economic decisions and balances within the framework of simple and beautiful mathematics. These simple and beautiful frameworks of math did not allow for presence of more difficult theories like perceptional psychology theory (Fredrick, 2003). Before 1930s, common economic literature like Adam Smith, Keynes, Marshal, Fischer and … works are full of psychological concepts. After conversion of these concepts into mathematical formulas by subsequent economists, psychological aspects of economy are being consigned to oblivion. Smith, who is famous for his work "wealth of nations" states that: " people eat their meals not for goodwill of butcher, brewer or baker but also for their being profit-seeking." However, he has discussed about aspects of personal ethics in which people are worried about others in one of his latest books called "theory of ethical feelings" but the question is that why this book was not as famous as "wealth of nations"? this is because he tries to prove that Pareto's optimum criterion in competitive balance has been simplified assuming that utility of individuals depends only on their benefit and shares. This may help us with asking how economic analyses have been changed in Smith's book by being combined with ethical feelings. in 1970s, psychology experts started to study individuals' economic decisions and their judgments. These studies proposed some methods different from that of Simon's method. They used "maximization of expected utility" and "Bayesian probability rules" methods as criteria for judgment. In the end, they used compatibility with or deviation from these criteria as means for reasoning and making hypotheses on cognition mechanisms (Humpherey, 1994). In prospect theory, general idea is that people make them compatible with sense of pleasure and joy and utilities are determined by benefits and disadvantages of some base points and in higher classes by total personal wealth. Many studies showed that responses to profit and loss are different from two aspects: losses are two times more disgusting than their same-level benefits (disgust at loss). People usually look for risk in loss, where they may become equal (access to base point) while they avoid taking risks in benefits (reflexive effect) (Hilton, 1987). Moreover, in expected utility theory, tendencies to risk are determined only by curvature of utility function. In prospect theory (and other different theories), risk inclinations are also affected by non-linear distribution of probabilities. For instance, an individual, even if his or her utility function is concave for money return, can buy a lottery ticket (it is rational and plausible) if he or she gives a high weight to his or her small chance of win. The assumption that high weights are assigned to small probabilities (and many experiences support it) can explain that why people with concave utility for benefits like asymmetric lottery tickets with small chances for win and explains that why people who bet on losses look for insurance for confronting with small chance of heavy losses.

Brand Eigen value

For decades, a company's value was estimated based on its properties, tangible assets, factories and equipment. However, it has been proved that the real value of a firm lies somewhere beyond that i.e. in its potential purchasers' minds (Heidarzadeh et al, 2011). Branding and brand management has received a lot of attention in marketing world. Many theorists and managers consider brand management as the future of marketing. Possibly no asset is more valuable than a powerful, validated and popular brand. Many organizations aim to build a powerful brand in market. Other advantages of brand development include lesser vulnerability to market competitive conditions, higher margin of profit, stronger communications with upstream and downstream rings and so on. Doshernatoli and Dal Olmorili advised that brand management should contain both organizational input and output in a way that is conceived by customers. Brand management has a strategic position in new marketing paradigm and even constitutes a part of organizational vision. One of the best ways for introduction of organizational culture and vision is use of communication programs about a brand. Branding strategies and brand management are efficient instruments for managers and make it easier to create value for customers and bring higher profits for shareholders. Quantitative measurement of brand value has received a lot of attention by management researchers since early 90s. in other words, researchers are interested in quantifying value of a brand and measure its value. A brand's Eigen value is a response to above question by researchers. This is very important for IT-based companies because these companies acquire their cash flows in return for their brands. From financial viewpoint, knowledge about value created by a company's brand is one of the main factors for decision-making while buying, merging, owning or developing activities of a firm.

Brand value model

The present study investigated a brand value creation model for investigation of relationship between select marketing activities and creation of brand value for SAMSUNG mobile phones in Iran. as it was said before, Yoo et al (2000) brand value creation process model which is the developed form of Aker's model show that marketing activities have important impacts on dimensions of brad value improve its value and also it is assumed that there are strong relations between dimensions of brand value. Yoo et al used this model for investigation of relationship between several activities of marketing mix and brand value via mediation of the role of dimensions of brand value in USA. In brand value creation process model, Yoo et al defined brand value as difference in selection of consumer between main branded product and an unbranded product which are similar in some features. They recognized three dimensions of brand value: perceived quality, brand loyalty and brand awareness with brand communications. They selected some key elements of marketing mix. These include price, mental image, intensity of distribution, promotion and advertisement costs. In comparison with three dimensions of brand value in Yoo et al's model, four dimensions of brand value were considered in this research. These dimensions include (Aker, 1991-1996): brand loyalty, perceived quality, brand awareness and mental communications. Because brand awareness and brand communications have been combined in Yoo et al's model and indicated one dimension, these two were separated from each other in the present research because these two were expected to have different impacts on brand value and marketing activities. Brand value means creation of additional utility and added value for a brand via the name of that brand. Brand value can create value both for company and customer. Hence, this phrase has attracted a lot of attention both in university studies and in practical papers. Individuals can make decisions based on their feelings and purchase a product without paying attention to awareness and knowledge about the product (Abdolvand et al, 2011). In customers' strategy, customer loyalty is of great importance for any organization. Customer loyalty increase has received a lot of attention by academics and managers and advisors (Haghighi et al, 2012). Since "brand value" was introduced in 1980s, it has received a lot of attention by marketing students and firms. This resulted in many definitions provided for it: added value created via brand name, additional utility difference between brand general preferences and preferences of several features based on levels of measured features, general quality and selection intentions based on a customer-oriented viewpoint, brand value is defined as impacts brand knowledge have on consumer's response to brand marketing. According to brand value benefit, Aker defined it as a collection of assets related to a name or symbol which adds to values presented by a product or service. According to an economic attitude, customer-oriented brand value is a brand's benefit as a valid signal for the position of a product. In the end, brand value is difference between branded product value and its value when it has not been branded.

Relationship between behavioral economy and consumers' selection

Purchasers who are main consumers of products have several options. Selection is usually made from a pre-tested list of brands. Some purchasers buy brands with prize prices. These are people who increase their information probably because their needs do not create sensitivity for price. Other purchasers buy only the cheapest accessible brands and increase it due to usefulness and their purchase behaviors are sensitive to price. Among these customers, some make multiple brand purchases. Behavioral economics is one of the relatively new branches of economics which is mainly aimed to promote economic knowledge and match economic

models with external realities. This branch of economy which has many followers today has been introduced to Iran very badly and inappropriately so that economists have wrong and odd inferences and perceptions of this branch of economics.). Behavioral economics substitutes rigid rationality assumptions of economic modeling with assumptions which are compatible with psychological understanding. Of course, social sciences scientists criticized economic models because of high rationality and wisdom assumptions and economists have always defended these models as useful and good estimations. The only interesting question is that "how to combine economics with psychology?". Herbert Simon who introduced bounded rationality in 1950s showed that individuals' theory in economics should be likened to perceptional psychological theories which determine segmented models or mechanisms. Economists never used this proposal as their model maybe because Simon's theory was introduced just when economists were finding ways for description of economic decisions and balances within the framework of simple and beautiful mathematical models. These mathematical models did not allow for emergence and development of perceptional psychological theory.

Research conceptual model
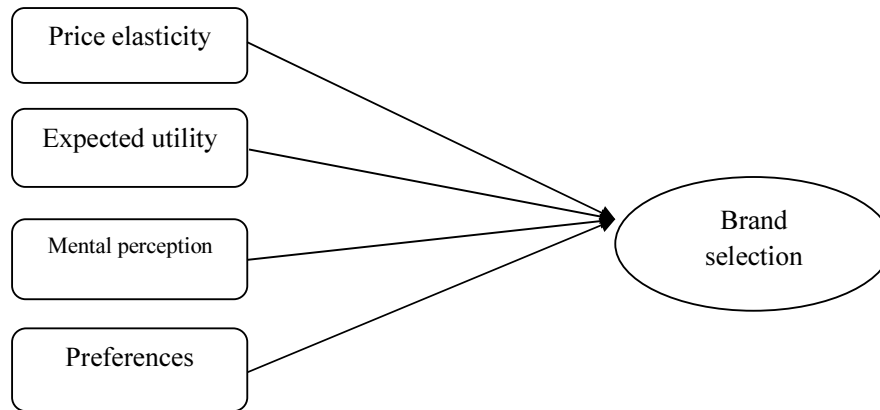
Research hypotheses

H1: products price elasticity has a direct influence on brand selection by consumer.
H2: consumers' expected utility has a direct influence on brand selection by consumers.
H3: consumers' mental perceptions have a direct influence on brand selection by consumers.
H4: consumers' preferences have direct influence on brand selection by consumers.

MATERIALS AND METHODS

Questionnaire

A questionnaire was used for data gathering. All questions were based on 5-point Likert scale from "completely disagree" to "completely agree". After preparation of the questionnaire, 30 questionnaires were distributed among customers of Yas Store as a pretest and in order to investigate reliability. Cronbach's alpha coefficientwas used for testing reliability. The results showed that Cronbach's alpha coefficient for all variables and total questionnaire were above 0.7. Furthermore, validity of the questionnaire was also verified by experts. Therefore, the questionnaire had enough validity and reliability for distribution among statistical population.

Sample

The statistical population of the research included all customers of Yas store in Tehran City. 300 questionnaires were distributed among respondents randomly. 268 questionnaires were complete and used for data analysis. Return rate of the questionnaires was therefore equal to 0.89 (268/300=0.89).

Data analysis

Investigation of normality of variables
Kolmogrov-Smearnov test was used for investigation of normality of data distribution. The results are summarized in table 1.

Table 1: investigation of normality

variables	statistic	Df	Significance level
price elasticity	0.130	267	0.000
expected utility	0.124	267	0.000
Mental perception	0.111	267	0.000
Consumer preferences	0.113	267	0.000
Brand selection	0.099	267	0.000

As it can be seen, all variables have non-normal distributions because significance levels for these variables are smaller than 0.05. Consequently, we use non-parametric tests for testing the hypotheses.

Research hypotheses test

Structural equations modeling was used for testing research hypotheses. Considering non-normal distribution of research variables, PLS method was used for analysis. The results of this test have been summarized in table 2.

Evaluation of measurement model

Convergent validity test and discriminant validity test were used for investigation of measurement model. Leong et al (2013) defined convergent validity as "ability to produce similar results in spite of different methods use". Three main criteria by which convergent validity is measured for measurement model include:
1. Calculated factor loadings in measurement section are greater than 0.5.
2. Calculated values for composite reliability for all constructs (latent variables in here) must be greater than 0.7.[1]
3. Average variance extracted (AVE) for research constructs must be greater than 0.5.

The results of calculations for convergent validity criteria have been presented in table 4.

Table 4: values for model external section

construct	Index signal	Factor loading	Significance number (t)	AVE	Composite Reliability
price elasticity	q1	0.62	5.50	0.58	0.85
	q2	0.66	8.10		
	q3	0.80	22.05		
	q4	0.83	18.95		
expected utility	q5	0.79	16.49	0.54	0.82
	q6	0.84	20.10		
	q7	0.78	13.78		
	q8	0.77	10.09		
Mental perceptions	q9	0.79	15.53	0.69	0.90
	q10	0.68	7.65		
	q11	0.82	14.92		
	q12	0.77	11.77		
Consumer preferences	q13	0.85	18.61	0.63	0.87
	q14	0.76	10.06		
	q15	0.87	20.86		
	q16	0.84	18.38		
Brand selection	q17	0.78	17.72	0.62	0.87
	q18	0.81	13.15		
	q19	0.78	12.70		
	q20	0.78	14.51		

The results of convergent validity analysis show that:
1. All calculated values for factor loadings of the observed indices are greater than minimum criterion value (0.5). Therefore, the instrument has enough convergent validity in this research.
2. All calculated values for composite reliability are greater than maximum criterion value (0.7). Therefore, the instrument has enough convergent validity.
3. Calculated values for average variance extracted (AVE) for all research variables are greater than the criterion value (0.5). Therefore, it can be said that the instrument has enough convergent validity.

In general, it can be said that the measurement model of the research has acceptable convergent validity.

N investigation of significance numbers of indices of different constructs show that since all values are greater than 1.96, it indicates significance of all indices in 95% certainty level. Therefore, these indices are appropriate factor structures for measurement of dimensions of research model.

Structural model

Research hypotheses are based on relationships between latent variables and these relationships can be expressed within the framework of structural model. Therefore, we use model structural section for investigation of research hypotheses. The conceptual model tested by smart PLS software has been presented in figure 2.

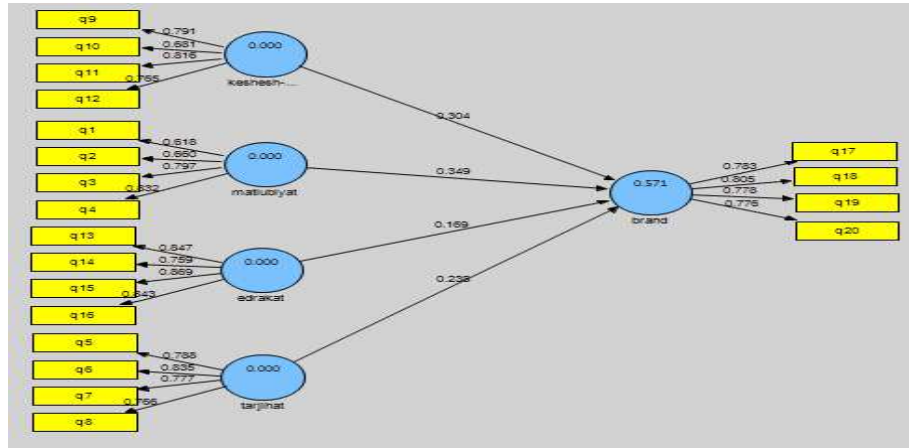[1]Some researchers like Bagozzi and Yi (1988) proposed 0.6 as criterion value.

Figure 2.research tested model in smart PLS software

Numbers written on the lines indicate beta coefficients of regression equation which is the very path coefficient. Numbers written in circles indicate determination coefficients (R^2) and predicting variables enter the circles via arrows. Determination coefficient indicates percentage of variations of dependent variable which are determined by predicting variables. table 5 summarizes standard beta and significance numbers for relationships among variables.

Table 5: research hypotheses test

Result	Significance (T) number	Correlation intensity	hypothesis
supported	3.681	0.304	products price elasticity has a direct influence on brand selection by consumer.
supported	4.343	0.349	consumers' expected utility has a direct influence on brand selection by consumers.
supported	2.279	0.169	consumers' mental perceptions have a direct influence on brand selection by consumers.
supported	2.425	0.238	consumers' preferences have direct influence on brand selection by consumers.

Considering the fact that certainty level is 95% for hypotheses tests, all hypotheses that have significance numbers outside of (-1.96, +1.96) interval are supported. Results show that expected utility has a factor loading equal to 0.349 and is the most effective variable and consumers' mental perceptions with a factor loading equal to 0.169 has the least influence on brand selection.

Conclusion

Products price elasticity on brand selection by consumers can be explained as: individuals can select a brand considering the level of elasticity of prices. Regarding the influence of consumers' expected utility on brand selection, the results show that this factor has an influence on brand selection. Maximization of utilitycan be substituted by "reference-dependent preference" theory (which states that in spite of preference, people are sensitive to current use or other base points) and "preference structure" theory. Therefore, it is recommended that stores provide products which satisfy maximum expected utility. Marketers should be aware of different factors which influence selection of different brands by purchasers and know that how consumers make decisions about their purchases. According to the results of the present research, consumers express more commitment to brands which are more compatible with their social values and positions. Therefore, marketing managers must conduct more studies on symbolic value of products and try to identify personal images of target consumers. Use of this element can be very effective in determination of position of a brand and design of promotional activities. Regarding the influence of consumers' preferences on brand selection, the results showed that this factor influences brand selection. Consumers have different reasons for preferring one product or brand to another one.

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