

Investigation of the Influence of Perceived Quality, Price and Risk on Perceived Product Value for Mobile Consumers

Zeinab Piri¹ & Fereshteh Lotfizadeh¹

¹ Department of Business Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran

Correspondence: Fereshteh Lotfizadeh, Department of Business Management, Zanjan Branch, Islamic Azad University, Zanjan, Iran. E-mail: lotfizadeh1981@gmail.com

Received: July 6, 2014 Accepted: November 27, 2015 Online Published: December 21, 2015

doi:10.5539/ass.v12n1p103

URL: <http://dx.doi.org/10.5539/ass.v12n1p103>

Abstract

This article aims to investigating the effects of perceived quality, risk and relative price on the perceived value and purchase intentions of mobile phones. The population comprises 293 persons of Business Administration MA students from the Islamic Azad University of Zanjan.

The questionnaires were validated using face validity. In addition, the reliability was calculated using Cronbach Alpha, Split-half and Test- re-test. To analyze the data, with SPSS and LISREL software, Exploratory and Confirmatory Factor Analyses (to identify the effective factors) and Structural Equation Modeling (SEM) (to test the hypotheses) were calculated

The findings indicate that perceived value does not influence purchase intentions. Perceived quality, perceived relative price and perceived risk do not influence purchase intentions through perceived value. Perceived risk, perceived quality and relative price all influence perceived value. Relative price influences perceived product quality and the latter, in turn, affects perceived risk. The results of the study show that it is essential to develop an understanding of value in the purchasing process. Moreover, the risk should be reduced to a minimum.

Keywords: perceived value, perceived quality, perceived risk, perceived relative price, purchase intentions

1. Introduction

From the consumer's perspective, perception is a process through which individuals are exposed to information, heed, understand and interpret it. Researchers have realized that the perceived quality and perceived relative price are assimilated in order to affect perceived value and the latter is the most significant effective factor on purchase intentions (Ha-Brookshire, 2012).

Today, creating value for the customer is considered the best way to achieve longstanding success in many prominent companies (corporations). Methods such as globalizing competition, freeing national and international commerce, saturating the market and overcapacity as well as the technological development rate and other innovations, the ever growing customer expectations, touting and the like all have resulted in greater attention to the importance of perceived product price and value (Pisnik & Snoj, 2007). The paramount, most rational rule that applies to the customers is that their motivation must be met through proper value. One of the most important concepts among managers and academia is the transfer of value to the customers. Many researchers believe that it also must be part of the most fundamental concepts in market and capital/ asset strategies. According to research findings, the highest perceived value leads to more customer satisfaction, high loyalty levels, maintaining customers, and finally, to success. This challenge has gained an ever-increasing significance. In fact, it has been predicted that in the 21st century, the concept of value will be of more significance to the customers. Therefore, the researchers decided to unearth the relationship among the three concepts of perceived value, perceived quality and perceived risk (Snoj & Pisnik, 2004).

Due to the increasing number of customers of mobile, thus it is important for retailers to understand what is their perception of product attribute? If a retailer wants to attract and retain their customers, should be understand customers' behavior. Hence, it is important to investigate what influence of perceived quality, price and risk on perceived product value and to understand the Iranian customers' perceptions of these items. All in all, this study serves three goals. The first is to find the impacts of perceived quality, price and risk on perceived product value. The second is to investigate the influence of perceived product value on purchase intention for Mobile. Finally,

this study provides suggestion to both sellers/ retailer and marketing researchers, based on the results of the survey.

This study proposes a research model, presenting several hypotheses based on the main structure of model. It also conducts a field research to test the hypotheses. Thus, the chief objective of this research is to investigate the effects of perceived quality, perceived relative price and perceived risk on perceived value and mobile purchasing intention.

2. Literature Review

From the consumer's perspective, perception is a process through which individuals are exposed to information, heed, understand and interpret it (Ha-Brookshire, 2012).

2.1 Perceived Product Value

One noticeable definition has clarified this structure as follows: the proportion or exchange between quality and price (Monroe, 2002). The value perceived by the customer is indicative of some overall mental evaluation of specific products or services. In comparison to perceived relative price, perceived value is a structure imagined to be with merit, fair and right (Beneke & Flynn, 2013).

The customer's overall evaluation of the product's benefit is based on what is presented and received (Zeithaml, 1988).

The value perceived by the customer is one of the most important determiners of an individual's purchase intention, and consequently, purchase decision (Chang & Wang, 2011). Although research has shown that the conceptualization and measurement of this structure is difficult, there is a consensus over the fact that if the customer deems the value of specific products or services as high, their chances of making a purchase is high as well (Beneke, 2013; Monroe, 2002; Zeithaml, 1988). Evidence shows that the product value perceived by the customer is multi-faceted and a mental factor. Thus, an investigation of the various dimensions of value perceived by the customer is of utmost significance in developing effective strategies (Peterson & Yang, 2004). Value perceived by the customer not only depicts the image that exists in the individual's mind of the manufacturing company, but indicates what ways the company must use to be able to send a correct message to the minds of customers and interpret their intentions (Sweeney & Soutar, 2001). Marketing activities are generally based on the customer's value (Holbrook, 1994).

A key study relating to perceived value pertains to the efforts of Newman and Gross (1991), and Sheth (1991). In an extensive, experiential research which encompassed such fields as economy, investment, clinical and social psychology, they identified the 5 dimensions of perceived value as follows (Moliner, 2007; Fiol, 2011):

1. Social
2. Emotional
3. Functional
4. Cognitive
5. Conditional.

In marketing, perceived value is defined as the customer's assessment of expenses and benefits gained from purchasing a product or receiving a service (Yang & Peterson, 2004). The results of previous research suggest that perceived value augments customer satisfaction and future purchases (Jenkins, 2010). Perceived value is a factor that succeeds perceived quality and the latter can be considered as a prerequisite variable for value (Zins, 2001). Therefore, this article aims to investigate the following hypotheses:

H1: Perceived product value influences purchase intention.

The correlation among perceived value, risk and product value for the customer is attributed to his/her knowledge or expertise regarding purchasing and product use. Perceived value is an amalgamation of various product attributes (tangible and intangible, esoteric and exoteric, etc.), and this amalgamation exists in the purchasing and use of the product (Korda, 2007). As stated by Agarwal & Teas (2001), Beneke (2013) and Sweeney (1999), the value perceived by the customer should be investigated on grounds of its influence on the indirect relationship among perceived relative price, perceived product quality, perceived risk and purchase intention. Thus, the following hypotheses have been posed:

H 2-a) Perceived quality; b) Perceived relative price; c) Perceived risk influences purchase intention through perceived value.

2.2 Perceived Relative Price

Jacoby (1971) defined perceived relative price as follows: one that the customer concludes from making a comparison between the price of the product and the prices of other products. Wangenheim and Bayon (2007) are of the belief that it is vital to gain a perception of the price since it reveals the exoteric markers and is one of the most important pieces of information based on which the customer decides to make a purchase. From the customer's perspective, the price is something lost or sacrificed in order for the product to be attained (Zeithaml, 1988).

Jacoby and Olson (1977) have distinguished between Objective Price (the actual price of the product) and Perceived relative price (the price that the customer senses). According to research, consumers are not always aware of the actual price of the product. Instead, they remember the price that is meaningful to them (Dickson & Sawyer, 1985). The monetary cost is not the only factor, perceived by the consumer, which is sacrificed. Time, informational, and psychological prices are also among the sacrificed factors in purchasing a product (Zeithaml, 1988).

For many consumers, reliance on price is a quality indicator. There exists a general perceived quality- price linkage. There is a positive relationship between perceived quality and price. The utilization of price as an indicator of quality is founded on the following issues (Zeithaml, 1988):

- 1- The availability of other quality indexes ;
- 2- Disparity in the prices of various products;
- 3- Disparity in the quality of various products;
- 4- Consumers' level of knowledge of the prices and;
- 5- Consumers' ability in recognizing quality in different product groups.

Chen and Chang (2005) have discovered a weak connection between the perceived value of a product and its perceived relative price. But they state that the perceived product price affects the perceived value of the product through its perceived risk. Price is an index (indicator) of quality in situations where the exoteric (external) factors would not function better. What is of significance to the customers is whether perceived product value is greater than or equal to perceived product price. Consequently, when customers are exposed to different products, they select one that has more net value, i.e. a product that enjoys a positive disparity between its perceived value and perceived relative price (Pisnik korda, 2007; Eggert & Ulaga, 2002).

When the real price of a product is not clear, consumers would estimate its price using other features such as its brand name and would therefore guess about its quality. When the consumer is faced with the features of a new product, s/he would develop the perceived relative price and quality (Brookshire, 2012; Zeithaml, 1988). Therefore, the third hypothesis is as follows:

H3: Perceived relative price influences perceived product value.

2.3 Perceived Product Quality

According to the views of Olshavsky (1985), quality is a type of overall assessment. Perceived quality can be defined as follows: the customer's perception of a product's or service's overall quality or superiority compared to his/her inclination towards their alternative. Perceived quality cannot necessarily be objectively determined in a specific section since it is a perception and to some extent relevant to a judgment about something of importance to the customers (Aaker, 1991).

Perceived quality is a customer's judgment about a product's or service's perfection of overall superiority (Zeithaml, 1988). Perceived product quality depends on the customer's views regarding the overall experience of using that product and is not merely constrained to the features of a particular one (Zeithaml, 1988). An understanding of quality is established only when there is a dynamic relationship between the manufacturer and the customer (Eriksson, 1999). Since a lot of experimental studies have shown the positive correlation between quality and a product's level of success, market managers should be able to implement market strategies successfully in order to enhance the consumer's understanding of the high quality of the product. Consumers consider the brand name, price, the seller's reputation and the physical appearance of a product as indicators of its quality (Lee, 2009).

Perceived quality is an approach rooted in the comparison between the consumer's expectations and the product's actual performance (Erdogmus, 2012). Various studies have discovered a sort of correlation between perceived product quality and perceived value (Dodds, 1991; Khalifa, 2004). The presence of perceived product

quality in the perceived product value model and subsequently in purchase intention indicates that the product's quality is a significant determiner of brands sells and their positions (Garretson, 2002). Previous research points to a positive correlation between perceived product quality and perceived product value. Thus, the product's perceived high quality leads to an increase and enhancement of perceived value and consequently a growth in the customer's intention to make a purchase (Cronin, 2000; Snoj, 2004; Beneke, 2013). Hence, the formation of the 4th hypothesis:

H4: Perceived quality influences perceived value.

Research conducted by Calgate and Vareky (2001) & Gerstner (1985) show that the perceived relative price is also a determiner of perceived quality, and that there exists a positive correlation between these variables. Therefore, this search hypothesizes that:

H5: Perceived relative price influences perceived quality.

The studies conducted by Monroe and Krishnan (1985) have found a positive correlation between price and perceived product value, which is realized via the effect of perceived quality on price. This fact depicts the intermediary nature of the product's quality for perceived relative price. Consequently, on order to test such effect, the hypothesis below follows:

H6: Perceived relative price affects perceived value through perceived quality.

Many studies have tested the effect of perceived quality on purchase decision in an experimental fashion (Chang & Wildt, 1994; Monroe & Krishnan, 1985). According to the findings of previous research, there is an indirect relationship between perceived quality and purchase intention. Here perceived value and satisfaction act as mediators (Chang & Wildt, 1994; Tsiotsou, 2006). Some studies suggest that perceived quality has a direct, positive effect on purchase intention (Boulding, 1993; Kwak & Kang, 2009).

2.4 Perceived Risk

Dowling (1986) defines perceived risk as follows: suspicion of the desirable performance of a product that is present in all customers when deciding to make a purchase.

The concept of perceived risk is revealed in the purchase made by the consumer; it is a sense of skepticism regarding the outcome of the deal/ transaction made. It is the skepticism that the consumer faces when they cannot foresee the results of the purchase decision. Perceived risk is an abstract concept with various definitions, each specific to the conditions of products and customers (Mishra, 2013).

Mitchell (1998) is of the belief that perceived risk is "a multi-dimensional phenomenon" and is divided into different subcategories. The six types of general risk include functional (practical/ performance), physical, financial, social, psychological and time risks (Jacoby & Kaplan, 1972; Laforet, 2007; Beneke, 2013).

In general terms, perceived risk is a particular effect faced by the consumer in the initial phases of purchase (Zeithaml & Bitner, 2003). The consumer's purchasing process is linear and encompasses 5 stages:

Stage 1: Need identification; Stage 2: Search for information; Stage 3: Evaluation of offers; Stage 4: Purchase decision, and; Stage 5: Behavior after the purchase.

At the Need Identification stage, the consumer first perceived the risk. This occurs when they realize they need a product or service. Due to the presence of undesirable perceived risk stages, consumers utilize Risk Reduction Strategies (RRSs) during stages 2 and 3, such as relying on personal suggestions and collecting further information about the product or service in question (Blackwell, 2003; Cunningham & Gerlach, 2005). The results led to the identification of 6 types of Risk Reduction Strategies (RRSs) appearing below in order of importance (Mitchell & Groatorex, 1989; Bruwer & Fong, 2013):

- 1- Collection of Information;
- 2- Brand Loyalty;
- 3- Mental Image of the Store;
- 4- Famous Brands;
- 5- Price;
- 6- Certainty.

Customers are always aware of the loss that a product could incur (Sweeney, 1999); therefore, a product with a high probability of performance would have a low perceived value (Livesey & Lennon, 1993; Beneke, 2013). Consequently, it is hypothesized that:

H7: Perceived risk influences perceived value.

Based on previous research, customers rely on their perceptions regarding quality rather than having an understanding of risk (Sweeney, 1999; Batra & Sinha, 2000). Previous studies have emphasized that the higher the perceived quality, the lower the perceived risk (Batra & Sinha, 2000; Beneke, 2013). Thus we assume that:

H8: Perceived quality influences perceived risk.

In addition, perceived risk acts as a mediator between perceived product value and perceived product quality (Agarwal & Teas, 2001; Snoj, 2004; Beneke, 2013). Therefore, we assume that:

H9: Perceived quality affects perceived value through perceived risk.

2.5 Purchase Intention

Purchase intention is indicative of the consumer's level of positivity regarding the purchase of a product (Nguyen-Hau le, 2013). Previous studies on the market reveal that the perceived value of a product or brand leads to the development of a behavior towards that product or brand. Perceived value has a positive effect on personal inclinations/ tendencies (including purchase intention), and this effect is identified via 3 direct and indirect courses, customer satisfaction and company image. Therefore, purchase intention, reflective of the consumer's views regarding buying a product, is strictly linked to its perceived value (Nguyen-Hau le, 2013). Many consumers select a product based on its features, not the price tag. These features are perceived quality and value. This is not to say that price does not hold any importance at the product selection level since a lot of consumers allocate some budget for the product they plan to purchase. Rather, it means that price, too, is one of the factors considered during a purchase, just not the most significant one (Veloutsou, 2010).

3. Conceptual Model

This model is adopted from that of Sweeney's (1999), depicted in Figure 1. According to this model, perceived risk, relative price and risk all have a direct influence on perceived product value. Perceived value, in turn, has a direct influence on purchase intention. The relationship between relative price and perceived product quality and also that of perceived quality and perceived risk are illustrated in Figure 1. These relationships may affect perceived value, and eventually, purchase intention.

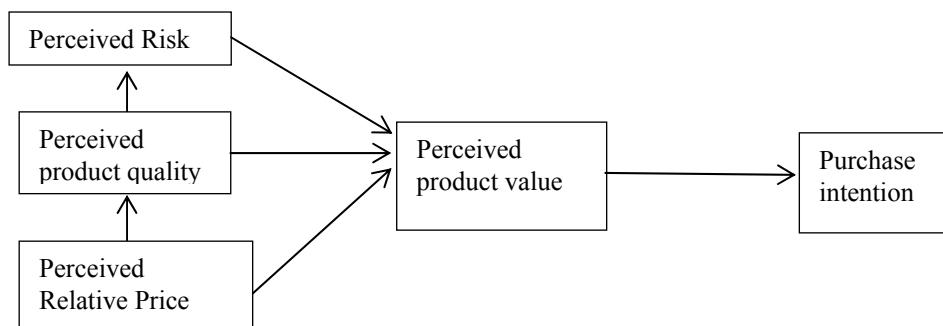


Figure 1. The conceptual model of this research (Sweeney, 1999)

4. Research Methodology

This study used two phase to collect data: pretest and final test. Before the final survey, a pretest was conducted for evaluating reliability by a printed questionnaire were summarized in Table 2. The questionnaire's reliability was established via Cronbach Alpha (with a coefficient of 0.92), split-half (with a coefficient of 0.92) and test-re-test (with a coefficient of 0.88). It was also validated using face validity (expert opinion).

The first section of questionnaire asked demographic information such as gender, monthly income, age and mobile brand. The second section of questionnaire content 25 items were designed to collect data on the variables. All items were measured on five-point Likert scales with anchors of totally agree (5) and totally not agree (1).

At the second step (final survey), for data collecting, a self-administered questionnaire was administered between 293 graduate students of Business Administration of Zanjan Branch, Islamic Azad University, and they explained their idea about mobile. Random sampling has been utilized for this research.

To investigate the research hypotheses, descriptive as well as inferential statistics were utilized with the help of SPSS 20 and LISREL 8.8 software.

Table 1. Reliability test results

Test Type	Phase	Sample Number	Result
<i>Cronbach Alpha</i>	Pre-test	30	0.920
	Post-test	293	0813
<i>Split half</i>	Pre-test	30	0.929
<i>Test-Retest</i>	Pre-test	30	0.887

5. Research Findings and Data Analysis

The sample was studied using frequency distribution tables, statistical diagrams and calculations of numerical descriptors such as central and distribution measures. Research variables, the number of questions posed for each one, as well as descriptive statistics pertaining to each of the variables such as mean, variance, standard deviation, are all brought in the Table 2.

Table 2. Items of questionnaire

Description	Factor loading	T-Value	Reference
Perceived product quality (Cronbach's $\alpha=0.88$, AVE=0.68)			
The performance of my mobile phone is very good	0.75	.....
The overall quality of my mobile phone is very high	0.78	12.85	
The durability of my mobile's phone battery is very long	0.35	5.61	Korda (2007)
My mobile phone has a lot of functions	0.78	.....	&
My mobile phone has a wide range of individual functions and settings	0.78	13.18	Le (2013)
My mobile phone has consistent quality	0.73	11.94	
My mobile phone has an acceptable standard of quality	0.69	11.19	
Perceived relative price (Cronbach's $\alpha=0.77$, AVE=0.59)			
My mobile phone is reasonably priced	0.80	15.23	
My mobile phone offers value for money	0.88	17.47	Korda (2007)
My mobile phone is a good product for the price	0.72	13.01	&
The price of my mobile phone was	0.77	13.14	Le (2013)
The maintenance costs of my mobile phone are	0.80	13.80	
Perceived Risk (Cronbach's $\alpha=0.71$, AVE=0.72)			
I that My mobile phone (will be) was very quickly out-of-date	0.62	10.10	
It is probable that would not be worth its cost	0.49	7.89	Korda (2007)
The possibility that my mobile phone wouldnot work as I expected is	0.77	13.26	&
The possibility of loosing money, because of the repairing and other costs to maintain my mobile phone is	0.69	11.57	Yong (2008)
Safety (e.g. harmful impact on health) of my mobile phone is	0.70	11.94	
Perceived product Value (Cronbach's $\alpha=0.89$, AVE=0.75)			
I That for the money I gave for my mobile phone, I got the product with a lot of benefits.	0.51	8.50	
For me, the overall value of my mobile phone is	0.60	9.82	Korda (2007)
The utility of my mobile phone is	0.69	11.40	
Money and all other efforts put in getting my mobile phone were	0.54	8.72	
Willingness to buy (Cronbach's $\alpha=0.73$, AVE=0.68)			
I'm willing to buy mobile phone even though choices are limited	0.77	.....	Le (2013)
I don't mind spending more time sourcing for my mobile phone	0.64	8.72	&
I would still buy mobile phone even though conventional alternatives are on sale	0.42	6.05	Agarwal
I would recommend mobile phone to friends or relatives	0.77	.....	(2011)

5.1 Exploratory Factor Analysis (EFA)

To conduct factor analysis, first we need to make sure that the data can be used for analytical purposes. In other words, is the data volume (sample size and the relationship among the variables) suitable for factor analysis? To answer this question, the KMO measure and the Bartlett Test are utilized. The KMO statistic for this research is 0.901, which is less than 0.7, indicating suitability for conducting factor analysis. If the level of significance for the Bartlett Test is less than 5%, that means factor analysis is suitable for the identification of the structure (factor model). That is because hypothesis regarding the singularity of the correlation matrix will be rejected. In this research a 0.000 level of significance was achieved. The Varimax rotation method has proven to be more successful than others as an analytical solution in conducting orthogonal factor rotation. This method seeks to summarize and simplify the columns of the factor matrix and for this reason, seeks to maximize the variance sum of factor matrix loadings. The results are presented in Table 3 below.

Table 3. The total amount of variance stated

Components	Eigen Values	Initial Eigenvalues	
		%Variance	%Cumulative variance
1	9.615	32.048	32.048
2	2.645	8.818	40.867
3	1.590	5.300	46.167
4	1.445	4.817	50.984
5	1.344	4.479	55.463
6	1.109	3.697	59.160
7	1.021	3.405	62.565

In addition, from the 30 questions rotated in the matrix, 5 were deleted and 25 were eventually analyzed.

5.2 Confirmatory Factor Analysis (CFA)

At this stage, the researcher attempts to investigate and test the correctness of the factor structure determined via exploratory factor analysis.

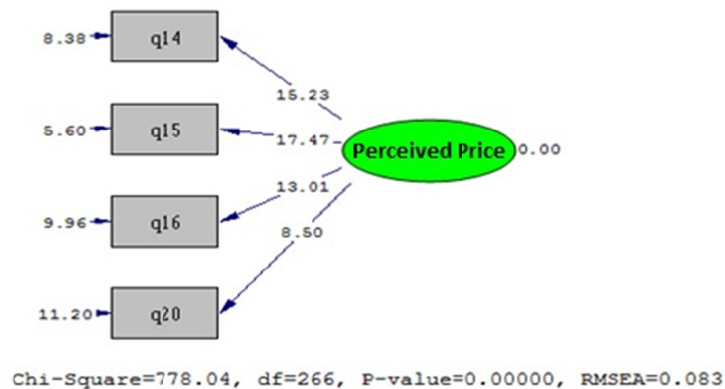


Diagram 1. Factor Loadings Confirmed by LISREL for the Independent Variable

The fitness measures for the independent variable (perceived relative price) were calculated as follows:

(TLI)=0.98, (RFI)=0.96, (CFI)=0.99, (RMSEA)=0.08, (NFI)=0.99, (PRATIO)=0.2.

Given that the highest factor loading belonged to question 15 (0.88) and the lowest to question 20 (0.51), it could be said that question 15 had the biggest role in stating the variable and question 20 the smallest role.

The fitness measures for the dependent variables are as follows:

(TLI)=0.82, (RFI)=0.75, (CFI)=0.9, (RMSEA)=0.08, (NFI)=0.8, (PRATIO)=0.79

The T amounts for these questions are greater than 1.96; thus, it could be stated that these results are valid with a 99% confidence level. In addition, from the amounts mentioned for factor loadings, one could realize the level of

influence of the questions; in the perceived risk factor, question 28 has the biggest influence and question 30 the smallest; in the perceived quality factor, question 7 has the biggest influence and question 8 the lowest; in perceived value factor, questions 11 and 18 have the highest and lowest influence respectively, and finally, in the purchase intention factor, questions 22 and 23 have the highest and the lowest influences respectively.

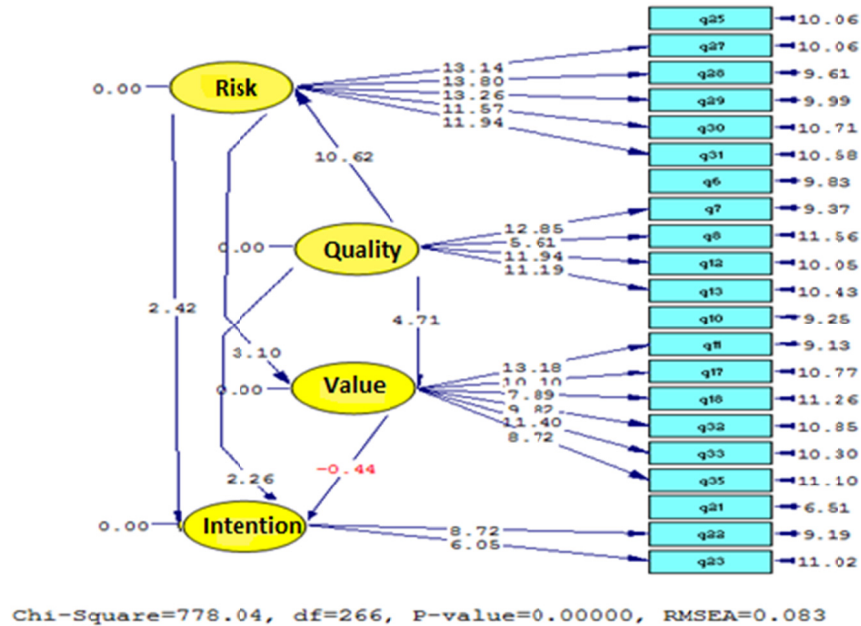


Diagram 2. Factor loadings confirmed by lisrel for dependent variables

5.3 Structural Equation Modeling (SEM)

One of the important stages in designing structural equation models is determining the variables, developing the route model and identifying the relationships among the variables. Developing such models, especially when the research topic is loaded with so many variables and is particularly complex, is absolutely essential.

Designing such models not only follows a series of processes, but also includes rules and principles which the researcher must obey while developing the model.

The findings of this research are depicted in Diagram 3 below.

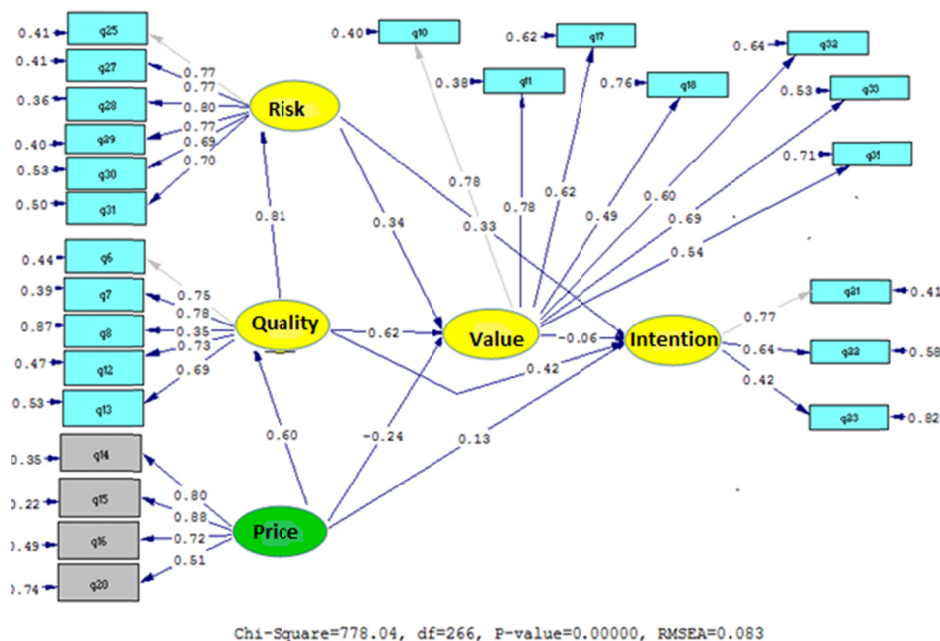


Diagram 3. Structural Equation Model

The fitness measures for the research model and their results:

$$\chi^2/df = 2.92, (RFI)=0.92, (RMSEA)=0.08, (CFI)=0.95, (NFI)=0.93, (PNFI)=0.82$$

Based on the calculated amounts, the fittings were excellent.

Using SEM, the relationships among perceived value, risk, relative price, quality and also purchase intention were investigated in this study. The results obtained from such investigation are presented in the table 4.

The results in Table 4 indicate that this hypothesis, considering a factor loading of -0.06, a T value of -0.44 and a 0.32 level of significance was not accepted. This means that perceived value does NOT affect a customer's intention to purchase a mobile phone.

As the results in Table 4 illustrate, considering a 0.03 factor loading, a 0.03 indirect effect and a 0.32 level of significance, H2a was rejected since the effect of perceived value at a 99% level of significance on purchase intention with a T value of -0.44 was rebutted. Since the relationship between perceived value and purchase intention was not confirmed either, all the relationships in which this variable is believed to play an intermediary role are also rejected. That is to say the perceived quality of a mobile phone does NOT affect the intention to purchase one via perceived value.

Table 4. The final results regarding testing the hypotheses

Hypotheses	Statistics Test	Statistics Value	Sig	Factor Loading	Results
H1	T	-0.44	0.32	-0.06	Rejected
H2-1	T	.....	0.32	0.03	Rejected
H2-2	T	.....	0.32	0.014	Rejected
H2-3	T	.....	0.32	0.02	Rejected
H3	T	-3.37	0.0	-0.24	Confirmed
H4	T	4.71	0.0	0.62	Confirmed
H5	T	8.51	0.0	0.60	Confirmed
H6	T	.....	0.0	0.37	Confirmed
H7	T	3.10	0.0	0.34	Confirmed
H8	T	10.62	0.0	0.81	Confirmed
H9	T	.....	0.0	0.27	Confirmed

According to Table 4, with a 0.014 factor loading, a 0.06 indirect effect and a 0.32 level of significance, H2b was not accepted. Perceived value at a 99% level of significance does not affect purchase intention with a -0.44 T. Since the effect of perceived value on purchase intention was not confirmed, therefore, all the relationships in which this variable is believed to play an intermediary role are also rejected. That means perceived relative price does NOT affect the intention to purchase a mobile through perceived value.

The results in Table 4 illustrate that with a 0.02 factor loading, a -0.06 indirect effect and a 0.32 level of significance, H2c was rejected since the effect of perceived value at a 99% level of significance on purchase intention with a T value of -0.44 was rebutted. Since the relationship between perceived value and purchase intention was not confirmed either, all the relationships in which this variable is believed to play an intermediary role are therefore rejected. That is to say the perceived risk does NOT affect the intention to purchase a mobile via perceived value.

The results from Table 4 showed that with a -0.24 factor loading, a -3.37 T value and a 0.00 level of significance, H3 was approved. In other words, the perceived relative price of a mobile phone does influence the perceived value of one.

As illustrated in Table 4, with a 0.62 factor loading, a 4.71 T value and a 0.00 level of significance, H4 was accepted. That means perceived quality influences the perceived value of a mobile phone.

The results from Table 4 indicated that with a 0.60 factor loading, an 8.51 T value and a 0.00 level of significance, H5 was accepted. In other words, the perceived relative price of a mobile phone DOES influence the perceived quality of one.

As Table 4 illustrates, with a factor loading of 0.37, an indirect effect of 0.37 and given that the T for perceived relative price on perceived quality and the T value for perceived quality on perceived value at a 99% level of significance is greater than 1.96, H6 is confirmed, i.e. perceived relative price influences the perceived value of a mobile phone via perceived quality.

The results from Table 4 show that with a 0.34 factor loading, a 3.10 T value and a 0.00 level of significance, H7 was accepted. This means perceived risk is effective on the perceived value of a mobile phone

The results from Table 4 indicated that with a 0.81 factor loading, a 10.62 T value and a 0.00 level of significance, H8 was accepted. In other words, the perceived quality of a mobile phone does influence its perceived risk.

As Table 4 illustrates, with a factor loading of 0.27, an indirect effect of 0.27 and given that the T for perceived quality on perceived risk and the T value for perceived risk on perceived value at a 99% level of significance is greater than 1.96, this H9 is confirmed, i.e. perceived quality influences the perceived value of a mobile phone via perceived risk.

6. Discussion and Implication Suggestion

Today, with fierce competition in attracting new customers, maintaining existing ones and gaining a greater market share, organizations across the world are obliged to develop new products and create distinctive features in them. With regard to the results, the levels of perceived quality, value and risk as well as the relative price and purchase intentions among the students (participants) are appropriate and above average, which goes to show that the status is favorable. Moreover, considering the results of this research, perceived value does not affect purchase intentions; also perceived quality, perceived risk and relative price do not influence purchase intention via perceived value. However, perceived quality does affect perceived value and increases purchase intention. Quality influences risk as well in that, as the former grows, the latter declines. Therefore, company CEOs must seek to employ strategies that enhance quality and reduce risk. There is a direct relationship between perceived value and perceived relative price in mobile phones. This relationship is strengthened once the perceived quality appears as an intermediary factor. In addition, perceived relative price affects perceived quality. Higher prices correspond with better quality and this very factor leads to lower risk and higher value. The high level of perceived value results in greater customer satisfaction, loyalty and better performance. Indeed, investors should invest on resources which elevate the consumers' understanding of product value.

In line with this study, the following suggestions are presented:

Managers are recommended to implement two strategies in order to enhance perceived product value: either reducing the price while establishing steady product performance or enhancing the performance while the price is fixed. Manufacturers are advised to focus on high quality and consequently provide their customers with the greatest value. Instances of quality enhancement of mobile phones include an enhancement in the quality of their cameras as well as their playback sounds.

Companies should raise the consumers' knowledge about the products as well as their quality so that the price would not be the only parameter in product selection.

Manufacturers are also advised to choose their prices fairly since high prices reduce purchase intentions while lower prices could convey inferior quality and value. Raising the prices with an extra option beside them indicates we are highly capable of making decisions. Utilizing price points would help us win the hearts and minds of our customers in the long run. An instance here would be purchasing a mobile phone and receiving a free memory stick.

In order to enhance the product's perceived quality, an assessment of needs should be performed to identify the needs, wants, tastes and interests of customers. In addition, to increase the perceived value of a product, a balance should be struck between the received product and the price paid by the customer.

Managers are recommended to heed the following points in order to reduce the risk associated with using mobile phones: they should decrease social and psychological risks through catalog, warranty, etc. Companies should attempt to present themselves as successful in the minds of people by advertising and providing information about their quality, competitive products in the market in order to inform people of their capacities.

Manufacturers are advised to showcase the advances in the quality of their products by displaying how their products work inside stores, TV advertisements and also the customer's word of mouth marketing channels. In today's competitive market where one encounters an innovation every moment and desires variety in their life, companies cannot sell their existing products through mere brand association; they need to innovate.

The use of a student sample may be a limitation to generalizability of this study's findings and future research should be conducted with a different sample that is more representative of the Iranian Consumers. Also, this study focused only on Mobile. Future research should consider several products that are available in Iran and extend this study toward another goods.

7. Suggestions for Further Research

- An investigation of the effect of distribution channels and their quality, as one of the mixed elements of marketing, on perceived value by customers; an investigation of the influence of advertising on perceived value among the youths
- A study of the effect of perceived quality and value on the intention of the customer to order products for others
- Researchers should develop models with more parameters related to perceived value as well as discuss further the linkage among perceived value, purchase decision and customer satisfaction and loyalty.
- The investigation of this subject in the field of services marketing.

Acknowledgements

Fereshteh Lotfizadeh is Assistant Professor of Marketing at the Department of Business Management, Islamic Azad University, Zanjan, Iran. lotfizadeh1981@gmail.com

Zeynab Piri holds an MA in Business Administration from the Islamic Azad University of Zanjan: piri_z@yahoo.com

References

- Aaker, D., & Kevin, L. K. (1991). Consumer evaluation of brand extension. *Journal of Marketing*, 54, 27-40. <http://dx.doi.org/10.2307/1252171>
- Agarwal, A., & Voon, J. (2011). Determinants of willingness to purchase organic food: An exploratory study using structural equation modeling. *International food and Agribusiness management review*, 14(2), 103-120
- Agarwal, S., & Teas, R. K. (2001). Perceived value: Mediating role of perceived risk. *Journal of Marketing Theory and Practice*, 9(4), 1-14.
- Batra, R., & Sinha, I. (2000). Consumer-level factors moderating the success of private label brands. *Journal of Retailing*, 76(2), 175-191. [http://dx.doi.org/10.1016/S0022-4359\(00\)00027-0](http://dx.doi.org/10.1016/S0022-4359(00)00027-0)
- Beneke, J., & Flynn, R. (2013). The influence of perceived product quality, relative price and risk on customer role and willingness to buy. *Journal of product & Brand Management*, 22(3), 218-228. <http://dx.doi.org/10.1108/JPBM-02-2013-0262>
- Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2003). *Consumer Behavior*.
- Boulding, W., Karla, A., Staelin, R., & Zeithaml, V. A. (1993). A dynamic process model of service quality: from expectations to behavioral intentions. *Journal of Marketing Research*, 36, 171-186. <http://dx.doi.org/10.2307/3172510>
- Bruwer, J., & Fong, M. (2013). Perceived risk, risk-reduction strategies (RRS) and consumption occasions. *Asia pacific- Journal of marketing and logistics*, 25(3), 369-390. <http://dx.doi.org/10.1108/APJML-06-2012-0048>
- Callarisa Foil, L., & Moliner, T. M. (2011). Multidimensional perspective of perceived value in industrial clusters. *Journal of Business & Industrial Marketing*, 26(2), 132-145. <http://dx.doi.org/10.1108/0885862111112302>
- Chang, H. H., & Wang, H. W. (2011). The moderating effect of customer perceived value on online shopping behavior. *Online Information Review*, 35(3), 333-359. <http://dx.doi.org/10.1108/14684521111151414>
- Chang, T. Z., & Wildt, A. R. (1994). Price, Product information and purchase intention: an empirical study. *Journal of the Academy of marketing science*, 22, 16-27. <http://dx.doi.org/10.1177/0092070394221002>
- Chen, T., Chang, P., & Chang, H. (2005). Price, Brand Cues, and banking customer value. *International Journal of bank marketing*, 23(3), 273-291. <http://dx.doi.org/10.1108/02652320510591720>
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effect of quality, value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2),

- 193-218. [http://dx.doi.org/10.1016/S0022-4359\(00\)00028-2](http://dx.doi.org/10.1016/S0022-4359(00)00028-2)
- Cunningham, F., & Gerloch, H. J. (2005). Perceived risk and the consumer buying process: internet airline reservations. *International Journal of service Industry Management*, 16(4), 357-372. <http://dx.doi.org/10.1108/09564230510614004>
- Dickson, P. R., & Sawyer, A. G. (1985). *Point of Purchase Behavior and Price Perceptions of Supermarket Shoppers*. Working Paper, Marketing Science Institute.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand and store information on buyer's product evaluations. *Journal of Marketing Research*, 28(3), 307-319. <http://dx.doi.org/10.2307/3172866>
- Dovaliene, A., & Virvilaite, R. (2008). Customer value and its contribution to the longevity of relationship with service provider: the case of theatre industry. *Inzinerine Ekonomika-Engineering Economics*, 1, 66-73.
- Dowling, G. R. (1986). Perceived risk: the concept and its measurement. *Psychology and Marketing*, 3(3), 193-210. <http://dx.doi.org/10.1002/mar.4220030307>
- Eggert, A., & Ulaga, W. (2000). Customer perceived value: a substitute for satisfaction in business markets?. *Journal of Business & Industrial Marketing*, 17(2/3), 107-118. <http://dx.doi.org/10.1108/08858620210419754>
- Erdogmus, I., & Budeyri- Turan, I. (2012). The role of personality congruence, perceived quality and prestige on ready- to- wear brand loyalty. *Journal of Fashion Marketing and Management*, 10(4), 399-417. <http://dx.doi.org/10.1108/13612021211265818>
- Eriksson, K., Majkgard, A., & Sharma, D. D. (1999). Service quality by relationships in the international market. *Journal of Service Marketing*, 13(4/5), 361-375. <http://dx.doi.org/10.1108/08876049910282628>
- Garretson, J. A., Fisher, D., & Burton, S. (2002). Antecedents of private label attitude and national brand promotion attitude: similarities and differences. *Journal of Retailing*, 78(2), 91-99. [http://dx.doi.org/10.1016/S0022-4359\(02\)00071-4](http://dx.doi.org/10.1016/S0022-4359(02)00071-4)
- Gerstner, E. (1985). Do higher prices signal higher quality? *Journal of Marketing Research*, 22(2), 209-215. <http://dx.doi.org/10.2307/3151366>
- Ha-Brookshire, F., & Yoon, S. (2012). Country of origin factors influencing us consumers perceived price for multinational products. *Journal of consumer marketing*, 29(6), 445-454. <http://dx.doi.org/10.1108/07363761211259250>
- Holbrook, M. B. (1994). *The nature of costumer's value: An axiology of service in consumption experience*. C A: sage publications.
- Jacoby, J., & Olson, J. C. (1971). *Price, brand name, and product composition characteristics as determinants of perceived quality*.
- Jacoby, J., Olson, J. C., & Haddock, R. A. (1972). Price, Brand Name and Product Composition Characteristics as Determinants of Perceived Quality. *Journal of Apply Psychology*, 55, 570-579. <http://dx.doi.org/10.1037/h0032045>
- Jenkins, E. L. (2010). *The effect customization of customer loyalty programs on value and loyalty intention*. Indiana pursue university, Master of Science thesis.
- Khalifa, S. (2004). Customer value: a review of recent literature and an integrative configuration. *Management Decision*, 42(5), 645-666. <http://dx.doi.org/10.1108/00251740410538497>
- Kim, Y. (2008). The effect of perceived risk and technology type on user's acceptance of technology. *Information & Management*, 45, 1-9. <http://dx.doi.org/10.1016/j.im.2007.03.005>
- Kwak, D. H., & Kang, J. H. (2009). Symbolic purchase in sport: the roles of self-image congruence and perceived quality. *Management Decision*, 47(1), 85-99. <http://dx.doi.org/10.1108/00251740910929713>
- Laforet, S. (2007). British grocers brand extension in financial services. *Journal of Product & Brand Management*, 16(2), 82-97. <http://dx.doi.org/10.1108/10610420710739964>
- Le, N. H., & Nguyen, T. (2013). National identity and the perceived values of foreign products with local brands. *Asia pacific Journal of marketing and logistic*, 25(5), 765-783. <http://dx.doi.org/10.1108/10610420710739964>
- Lee, J. W. (2009). Determinants of product quality perception and their application to marketing standardization.

- International Journal of Emerging Markets*, 4(2), 119-136. <http://dx.doi.org/10.1108/17468800910945765>
- Livesey, F., & Lennon, P. (1993). Factors affecting consumer's choice between manufacturer brands and retailer own labels. *European Journal of Marketing*, 12(2), 158-170. <http://dx.doi.org/10.1108/EUM0000000004965>
- Mitchell, V. (1998). A role of consumer risk perception in grocery retailing. *British Food Journal*, 100(4), 171-183. <http://dx.doi.org/10.1108/00070709810207856>
- Mitchell, V. W., & Greatorex, M. (1989). Risk reducing strategies used in the purchase of wine in the UK. *European Journal of Marketing*, 23(9), 31-46. <http://dx.doi.org/10.1108/EUM0000000000589>
- Moliner, M. A. (2007). Perceived relationship quality and post-purchase perceived value. *European Journal of marketing*, 41(11/12), 1392-1422. <http://dx.doi.org/10.1108/03090560710821233>
- Monroe, K. B. (2002). *Pricing: making profitable decisions* (3rd ed.). Mc Graw- Hill, New York, NY.
- Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: a theory of consumption values. *Journal of business research*, 22(2), 159-170. [http://dx.doi.org/10.1016/0148-2963\(91\)90050-8](http://dx.doi.org/10.1016/0148-2963(91)90050-8)
- Olshavsky, R. W. (1985). Perceived quality in consumer decision making: an integrated theoretical perspective. In B. Snoj, & A. Pisnik Korda (2006), The relationships among perceived quality, perceived risk and perceived product value. *Journal of product & Brand Management*, 13(3), 156-167.
- Olson, J. C. (1977). Price as an informational cue: effects in product evaluation. In V. A. Zeithaml (1988), Consumer perceptions of price, quality and value: A means-End Model and synthesis of Evidence. *Journal of marketing*, 52, 2-22.
- Peterson, R. T., & Yang, Z. (2004). Customer perceived value, satisfaction and loyalty: the role of switching costs. *Psychology and Marketing*, 21(10), 799-822. <http://dx.doi.org/10.1002/mar.20030>
- Pisnik Korda, A., & Snoj, B. (2007). Direct and indirect effects of perceived price on perceived value of mobile phones. *Economics and Business, Marketing*, 62(9), 967-989.
- Shekhar, M., & Saji, K. B. (2013). The impact of institutional variables in new high-Tech product development processes. *Marketing Intelligence & planning*, 31(2), 160-178. <http://dx.doi.org/10.1108/02634501311312053>
- Sheth, J. N. (1991). Why we buy what we buy: a theory of consumption values. *Journal of Business Research*, 22(2), 159-170. [http://dx.doi.org/10.1016/0148-2963\(91\)90050-8](http://dx.doi.org/10.1016/0148-2963(91)90050-8)
- Snoj, B., & Pisnik Korda, A. (2004). The relationships among perceived quality, perceived risk and perceived product value. *Journal of product & Brand Management*, 13(3), 156-167. <http://dx.doi.org/10.1108/10610420410538050>
- Sweeney, J. C., & Soutar, G. (2001). Consumer perceived value: the development of multiple item scale. *Journal of Retailing*, 77(2), 203-220. [http://dx.doi.org/10.1016/S0022-4359\(01\)00041-0](http://dx.doi.org/10.1016/S0022-4359(01)00041-0)
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105. [http://dx.doi.org/10.1016/S0022-4359\(99\)80005-0](http://dx.doi.org/10.1016/S0022-4359(99)80005-0)
- Tsiotsou, R. (2006). The role of perceived product quality and overall satisfaction on purchase intentions. *International Journal of Consumer Studies*, 30(2), 207-217. <http://dx.doi.org/10.1111/j.1470-6431.2005.00477.x>
- Varki, S., & Colgate, M. (2001). The role of price perceptions in an integrated model of behavioral intentions. *Journal of Service Research*, 3(3), 232-240. <http://dx.doi.org/10.1177/109467050133004>
- Veloutsou, C., & Gioulistanis, E. (2010). Own labels choice criteria and perceived characteristics in Greece and Scotland: Factors influencing the willingness to buy. *Journal of product & Brand Management*, 13(4), 228-241. <http://dx.doi.org/10.1108/10610420410546943>
- Virvilait, R. Saladiene, V., & Skindaras, D. (2009). The relationship between price and loyalty in services industry. *Inzinerine Ekonomika-Engineering*, 3, 96-104.
- Wangenheim, F., & Bayon, T. (2007). Behavioral consequence of overbooking service capacity. *Journal of Marketing*, 71(4), 36-47. <http://dx.doi.org/10.1509/jmkg.71.4.36>
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: A means-End Model and synthesis of

Evidence. *Journal of marketing*, 52, 2-22. <http://dx.doi.org/10.2307/1251446>

Zeithaml, V. A., & Bitner, M. J. (2003). *Service marketing integrating customer focus across the firm*. McGraw-Hill, New York.

Zins, A. H. (2001). Relative attitudes and commitment in customer loyalty models. *International Journal of Service Industry Management*, 12(3), 269-294. <http://dx.doi.org/10.1108/EUM0000000005521>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).