

The Study of the Effect of Brand on Customer Loyalty of Electronic products

By

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Abstract

The brand is in fact a summary of the Company's activities that will connect customers and the company. The overall objective of this study is to evaluate the effect of brand on customer satisfaction of Sony and LG products. The Universe of the province is clients of these two products, which is considered as indefinite, and is randomly selected among those customers to 437 persons, and research methods used in this study is descriptive - analytic. A questionnaire was used to collect information whose validity was confirmed by the experts and whose reliability was tested by using Cronbach's alpha, and to analyze the findings of the study, Lisrel structural equation is used. Results indicate that satisfactory, values, emotions, resistance to change, trust and brand equity is positively related to customer loyalty

Keywords: *Customer Loyalty, Brand, Electronic products*

1. Introduction

The brand is a summary of the company's activities that will connect customers and the company. If a company is willing to find deep and meaningful relationships with our customers through his brand name, it has no choice but to seek common points, and common desires and interests with them (Sweeney & Swait, 2008). The brand plays an important role in management of relations with customers in long terms. Also it is used as a tool to enhance the satisfaction and service quality (Taylor et al, 2004). In the competitive world in which the rate of new competitors entering the market and offering different services is too high, and due to the high cost of finding new customers, retaining existing customers is very important. For this purpose, a deeper relationship with our customers is so important that we can achieve this goal only by the use of the brand name. Relationship with customers and commitment to live up to our claims by our brand will finally lead to customer satisfaction and loyalty (Seyed Javadin et al, 2010). With increased competition and rapid changes in technology and business and customers' right to choose, the success would be for those companies that are able to more properly understand the expectations and values of the target customers and to respond effectively to them (Wang & Liao, 2007, p384). Today, having a strong brand is considered as a competitive advantage. The famous brand can bring material and spiritual benefits for the company (Malek Akhlaq et al, 2010). Brand management is an area of growing importance in marketing management, especially when organizations change their efforts to communicate the intangible and complex messages (Goodchild & Callo, 2001). One of the most important issues facing today's brand managers is how to provide a better understanding of factors such as the relationship between brand and customer loyalty, especially considering the fact that the marketing management literature suggests many factors which affect customer loyalty (Mittal, 2001). Brand and Trademark are the main issues raised in enterprise product mix strategy. Businesses make large and long-term investment for their brand, especially in the fields of advertising, sales promotion and packaging. They know that the power of the market emanates from their products' brand, and strong brand brings customer loyalty to them. Perhaps the most distinctive skill of professional firms is their ability to create, preserve and develop their brands (Capferer 2006). If a company considers a brand name just as a name, it

would not understand the deep application that a brand can have in marketing. Research shows that the cost of maintaining customer loyalty is less than the cost of attracting a new customer (Javanmard and Soltanzadeh, 2009). Therefore, in order to grow and expand their presence in the market, it is necessary for companies to assess the role of trade marks in the formation of customer loyalty to codify their marketing strategies and create a strong brand in the market and compete with rivals in attracting loyal customers (Seyed Javadin et al, 2010). So in this regard, this study examines the role of brand in shaping the loyalty of customers for Sony and LG companies.

Importance and necessity of investigating the importance of brands is related to the firms' marketing strategies and their role in the capture, maintain, and support for customers. Brands have important and strategic role in gaining competitive advantage and corporate strategic management decisions (Simon et al, 1993). The fact that customers are loyal to brands can be an appropriate criterion to evaluate the long-term effects of marketing decisions. One of the important concepts in marketing is "brand loyalty". This concept plays an important role in creating long-term benefits for the company, because loyal customers do not need extensive promotional efforts; they are gladly willing to pay more to get the benefits of their favorite brand (Jafari, 2011). In addition, customer loyalty has a competitive edge in the brand market. Especially when considering the fact that in the industrial market, customers who are loyal to a brand can guarantee the life of a company or destroy it. So making brands, with an emphasis on building loyalty can help companies to establish a strategy for the future and to compete effectively with the global giants that have captured global markets (Seyed Javadin et al, 2010). Therefore, it is necessary for companies to grow and expand their market and be aware about the role of brand in loyalty of customers and to examine what aspects of the brand can foster this loyalty to the brand. This study investigated the relationship between customer loyalty and factors which are related to the brands.

2. Literature Review

Seyed Javadin et al. (2010) carried out a study entitled "Evaluation of brand effect on Industrial customers 'loyalty'" which wanted to study the relationship between customer loyalty factors and brand related issues. Their method of data collection was a questionnaire which was distributed in the statistical universe of centers of the Xerox print providers in 22 districts of Tehran and its sample size was 150. It was tested by using structural equation analysis and Spearman correlation coefficient test. Results indicate that brand equity and trust are the most important factors influencing behavioral and attitude in patterns of customer loyalty.

Abdulvand conducted a study entitled "Examination of effective factors on Tejarat bank's customers" in 2006. Given the importance of customers in the banking industry, this study has investigated the concept of customer loyalty of Tejarat Bank through evaluating the variables of mental image, service quality and satisfaction. The Statistical universe was Tejarat Bank customers located in Tehran. The data were collected using questionnaire. The results suggest a direct effect of mental image on satisfaction and service quality. Furthermore, service quality has a direct impact on customer satisfaction. Also the quality of service and customer satisfaction has a significant impact on their loyalty.

Allameh and Noktedan performed a study entitled "The effect of service quality on customer loyalty" in 1388. The aim of the study was to examine the relationship between the loyalty of customers and one of its key variables, i. e. service quality. In that study, the trust and satisfaction variables have been studied as intermediary variables, and for the evaluation of the data questionnaires are used in Likert 7 choices type. Statistical universe was the guests of 4 and 5 star hotels in Isfahan, and sample size was 67 and simple random sampling was used. The findings indicate a significant positive relationship between service quality and customer loyalty. In addition, the findings show the trust and satisfaction variables play mediator role in the relationship between service quality and loyalty, and in turn have significant positive impact on creating loyalty.

Seyyede Razie and Mir Abbasi defended her thesis entitled "Effect of key dimensions of value on customer loyalty: Case study of LG refrigerators and coolers" in Islamic Azad University of Rasht in 2008, and came to the conclusion that there is a significant difference in the key dimensions of value and customer loyalty. In this study, functional value, social value, emotional value and cost value have been introduced as key dimensions of value.

Fahimi (2006) conducted a study entitled "Factors influencing the selection and customer loyalty in banking: a case study of depositors in Mellat Bank", and concluded that the choice of brand equity and customer deposit interest rate has a positive effect on customer's choices and service quality effectively has a positive effect on customer loyalty.

In a study was performed by Atilgan and colleagues entitled "Determining factors Influencing Brand equity: a study of the drinks industry" in Turkey in 2003. Hypotheses of this research evaluated the effect of perceived quality, brand loyalty, brand associations ,brand awareness and on brand equity .The results of this study indicate that only brand loyalty variable has effect of on brand equity ,but three other factors (perceived quality, brand associations and brand awareness) have no effect on brand equity.

Conceptual Model

Steven Taylor et al (2004) in an article entitled "The importance of brand equity on customer loyalty", according to Baldinger and Robinson view, have provided a model for customer loyalty under the influence of brand. They regard satisfaction, value, resistance to change, emotions, trust and brand equity among the factors have significant impact on customer loyalty. Assessing the relationship between the components of the model has been used as a conceptual model to examine the role of brand in the formation of customer loyalty.

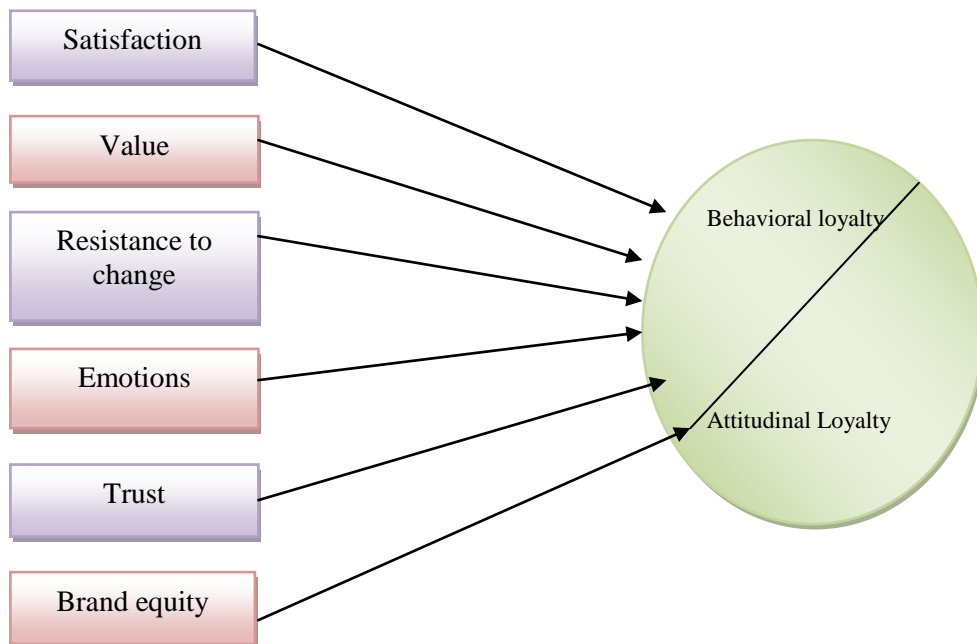


Figure 1 Effective factors in loyalty to the brand (Seyed Javadin et al., 2010)

3. Materials and Methods

This study in terms of research design is correlation, and in terms of goal is of application type. The research method is descriptive-analytical. The statistical universe of this research is customers of SONY and LG products in Gilan province, and since the number of customers of these two products is not determined, we use the formula for unrestricted universe.

$$n = \frac{z_{\alpha/2}^2 S_{\bar{x}}^2}{\varepsilon^2}$$

in which:

n is sample size,

$\alpha = 0/05$ is error level,

$\varepsilon = 0/05$ is the estimated error rate,

$S_{\bar{x}}^2$ Is sample variance (after distributing the number of 30 questionnaires among members of universe, the amount of $S_{\bar{x}}^2$ was equal to 0.2844).

$$S_{\bar{x}} = 0.5333$$

$$S_{\bar{x}}^2 = 0.2844$$

$$n = \frac{z_{\alpha/2}^2 S_{\bar{x}}^2}{\varepsilon^2} = \frac{z_{\alpha/2} = 1.96}{(1.96)^2 \times (0.5333)^2} = 437$$

$$n = 437$$

Thus, it is observed that the sample size of at least 437 people is sufficient for our purpose. We used random sampling in this study. The data collected in this study by using a questionnaire in which 5 choices Likert scale from totally agree to totally disagree is used. Validity of the questionnaire was confirmed by experts, and to calculate reliability coefficient of the test according to Cronbach's alpha, questionnaires were given to 30people, and Cronbach's alpha coefficient was calculated.

Table 1. Cronbach's Alpha coefficient for research variables

variable	Indices number	Cronbach's Alpha(percent)	result
satisfaction	4	75.2	It is reliable
emotions	3	76.2	It is reliable
value	3	77.9	It is reliable
trust	3	88.2	It is reliable
Resistance to change	3	84.5	It is reliable
Brand equity	3	85.8	It is reliable
Customer loyalty	6	77	It is reliable

4. Results and Discussion

In examining the findings of the study, initially we investigate the descriptive statistics of the research variables, and then hypothesis were examined using Lisrel structural equation, the following results were obtained. All the analysis is done by software's spss19 and LISREL 8.53.

The Results of the Variables Description

The results of each of the variables description is shown in the table below:

Table 2. results of variable description

variable	min	max	average	Standard deviation	variance
satisfaction	1	5	3.4783	0.85665	0.734
emotions	1	5	3.5042	0.99190	0.984
value	1	5	3.5236	0.98204	0.964
trust	1.33	5	3.7304	0.92780	0.861
Resistance to change	1	5	3.6339	0.98572	0.972
Brand equity	1	5	3.7040	0.92844	0.862
Customer loyalty	2	5	4.4301	0.57305	0.328

Results Obtained from Testing Hypothesis

To test the hypotheses, first we developed statistical hypothesis, then based on the results of the LISREL 8.53 software, we are attempting to confirm or reject the hypotheses. At first, we used the research's structural model in standard and significant numbers base. Criterion for confirming or rejecting any hypothesis is that if T statistic were within the interval [-1.96 ,1.96] the hypothesis is rejected, otherwise, the hypothesis is confirmed.

In this research, given the studies and literature review, six hypothesis have been proposed and shown in Table 3.

Table 3. Results of testing hypotheses

Hypothesis	Standard estimations	T statistic	Test Results
customer loyalty is positively related to satisfaction	0.37	2.29	Confirm
customer loyalty is positively related to value	0.16	2.07	Confirm
customer loyalty is positively related to resistance to change	0.24	2.34	Confirm
customer loyalty is positively related to emotions	0.85	8.21	Confirm
customer loyalty is positively related to trust to the brand	0.27	2.29	Confirm
customer loyalty is positively related to brand equity	0.37	2.85	Confirm

The first hypothesis: Customer loyalty is positively related to satisfaction.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 2.92, and since it is outside the range [-1.96 ,1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between satisfaction and customer loyalty is equal to37 percent.

The second hypothesis: Customer loyalty is positively related to value.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 2.07, and since it is outside the range [-1.96 ,1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between value and customer loyalty is equal to16 percent.

The third hypothesis: Customer loyalty is positively related to resistance to change.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 2.34, and since it is outside the range [-1.96, 1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between resistance to change and customer loyalty is equal to24 percent.

The fourth hypothesis: Customer loyalty is positively related to emotions.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 8.21, and since it is outside the range [-1.96, 1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between emotions and customer loyalty is equal to85 percent.

The fifth hypothesis: Customer loyalty is positively related to Trust to the Brand.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 2.29, and since it is outside the range [-1.96 ,1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between trust to the brand and customer loyalty is equal to27 percent.

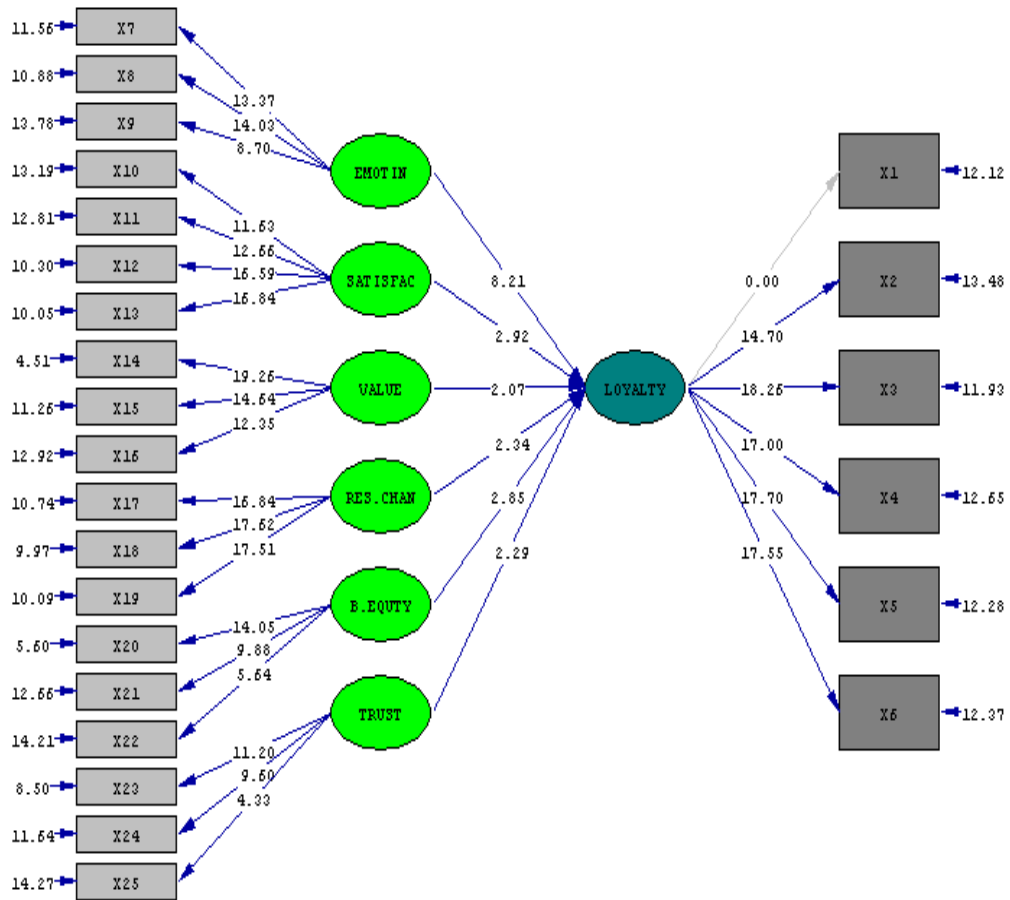
The sixth hypothesis: Customer loyalty is positively related to Brand Equity.

According to the basic model of research in standard base, the value of **t** statistic is equal to the amount of 2.85, and since it is outside the range [-1.96 ,1.96] this hypothesis is confirmed. Also, according to the standardized coefficient it can be said that the intense of relationship between brand equity and customer loyalty is equal to37 percent.

Structural model

The modeling of structural equations is a multi variable and strong technique from Regression multi variable family and in more precise way, it is the expansion of general linear model that allows researcher to test a collection of regression equations in a simultaneous way .The modeling of structural equations is a comprehensive statistical approach for testing hypothesis about relations between observed and latent variables which is called as structure covariance ,casual modeling and also as LIZREL but the dominant modeling term in structural equation is shortly said SEM. In lizrel outputs, in order to test hypothesis, we use two research models in standard and significant base. By standard model, we can find the severity of relation between two latent variables in the model and we can asses (claim) the effect of variables on each other. With significant model, we can discover the meaningfulness of two latent variables in model or we can claim about confirming or rejecting any of the hypotheses by using it.

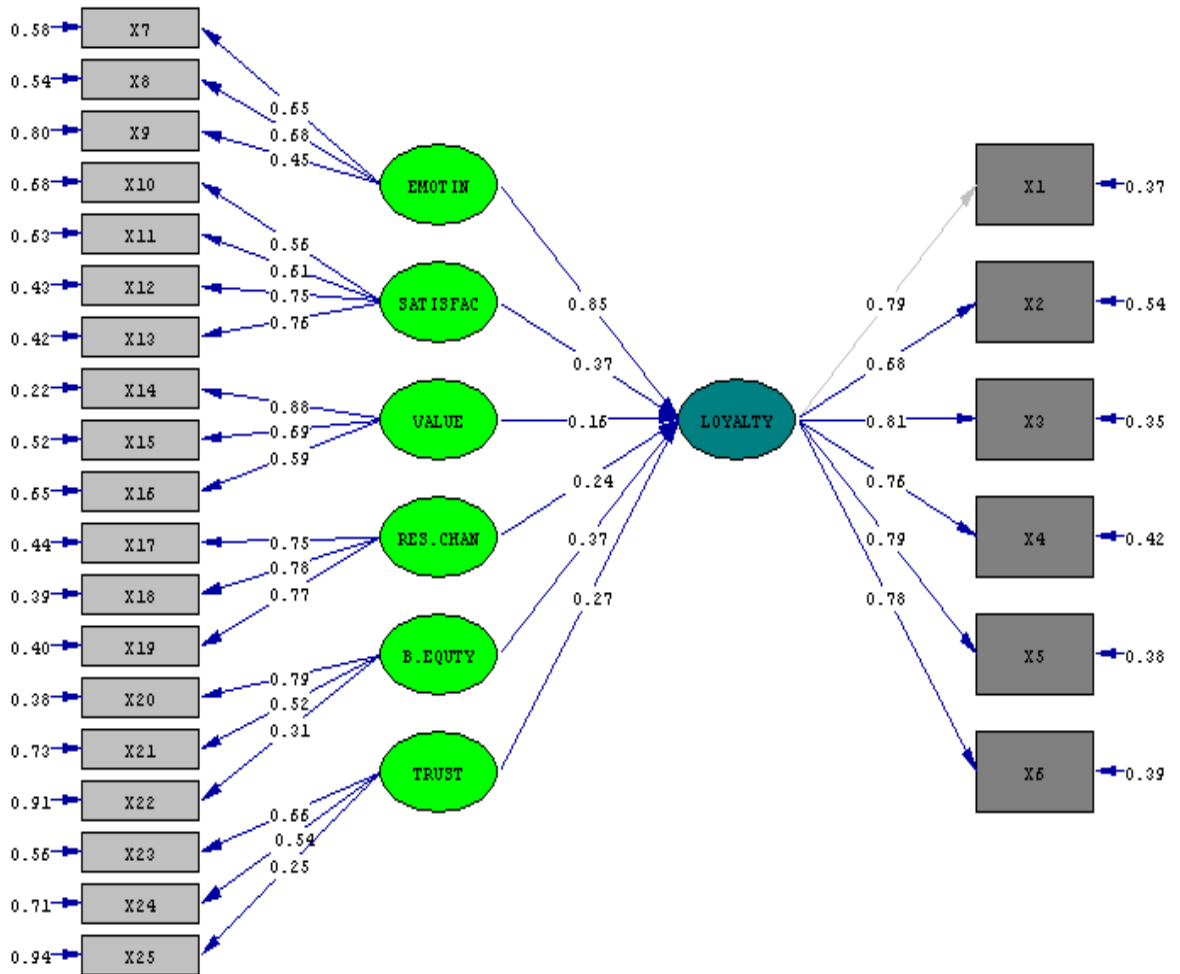
The basic (fundamental) model of research in significant numbers base (BT)



Chi-Square=1100.56, df=254, P-value=0.00000, RMSEA=0.072

Figure 2 the basic model of research in significant numbers base

The basic (fundamental) model of research in standard base(BS)



Chi-Square=1100.56, df=254, P-value=0.00000, RMSEA=0.072

Figure 3 the basic model of research in standard base

Examining the Indices of the Research Main Model

AGFI, GFI Indices

GFI index measures the relative amount of variances and covariances in joint through the evaluation model. GFI ranges between 0.8 and 1. The other fitness index is AGFI or modified value of the GFI index for degrees of freedom. This characteristic is equivalent to applying the mean of the square rather than the sum of the square in the numerator and denominator (GFI-1). Value of this index is also between the 0.8 and 1. Indices of GFI, AGFI which are proposed by Jarz Kag and Surbum (1989) does not depend on sample size. Both of these measures are between 0.8 and 1. The closer the GFI and AGFI are to number one, the better model fits with observed data.

RMSEA index

This index is the root of mean square approximation. This measure is defined for each degree of freedom as the difference in size. The RMSEA value which is in fact the standard deviation test in any degree of freedom is less than 0.05 for models that fit well. Higher values to 0.08 indicate a reasonable error of approximation in the universe. Models that their RMSAEA is 0.1 or more poorly fit.

Chi Square K2

Chi-square test(chi-square), test the hypothesis that the desired model is consistent with the pattern has been observed between variables. Chi-square value is highly dependent on sample size, and large samples increase the chi-square value highly more than what is attributed to the wrongness of the model. (Houman, 1384, p 422)

NFI, CFI Index

NFI index which is also called Bentler-Bonnet index. Bentler and Bonnet (1980) have proposed amounts equal to or greater than 0.9, compared with the previous zero model, as a good indicator of fitness of theoretical models, while some researchers consider values higher than 0.8 as acceptable and a sign for propriety of the model. CFI index is the same as NFI index, but pays fine for model complexity. The scope of this model is not limited to zero and one, and its interpretation is harder than the NFI. CFI index greater than 0.8 is acceptable and sign for fitness of the model. This index also tests improvement amount through comparing an independent model in which the variables have no relationships with the proposed target model. CFI index terms of meaning is such as NFI, with the difference that it considers some fines for the volume of the sample group (Houman, 1384, 423).

Table 4. Appropriateness of measurement model

Index	Value	Idealistic state
RMSEA	0.072	$0 \leq \& \leq 0.1$
GFI	0.84	$0.8 \leq \& \leq 1$
AGFI	0.84	$0.8 \leq \& \leq 1$
CFI	0.85	$0.8 \leq \& \leq 1$
NNFI	0.81	$0.8 \leq \& \leq 1$
NFI	0.82	$0.8 \leq \& \leq 1$
$\frac{\chi^2}{d_f}$	4.33	$1 \leq \& \leq 5$

Looking at the model indices, it can be concluded that the model is in a good state in terms of the indices.

5. Discussion and Conclusion

The results of the present study show that customer loyalty is positively related to satisfaction. In a survey conducted by Taylor and colleagues and also done by Allameh and Noktedan, it was stated that the customer loyalty has a positive relationship with satisfaction.

- The results of this study indicate that customer loyalty is positively related to value. Also, the results of Taylor study showed that customer loyalty is positively related to value.

- The results of this study indicate that customer loyalty is positively related to resistance to change. Outcomes of Taylor research also stated that customer loyalty is positively related to resistance to change.
- The results of this study indicate that customer loyalty is positively related to emotions. Taylor also reached this conclusion. So companies offering these two products should provide conditions that stimulate consumers feelings.
- The results of this study show that customer loyalty is positively related to trusting the brand. The results of Allameh, Seyed Javadin, Junbin and Jangon also suggest that trust is effective on customer loyalty.
- The results of this study indicate that customer loyalty is positively related to the brand equity. Taylor and Seyed Javadin also found that brand equity is the most important factor affecting the customer loyalty.
- Companies providing Sony and LG products should offer specific and particular services in order to make customers more loyal to their products and some strategies should be considered in this context.
- Companies providing Sony and LG products should offer services such as timely delivery after ordering and free and timely installation to the customers to attract their satisfaction.
- Companies providing Sony and LG products should select the locations which are more available to the customers.
- Companies providing Sony and LG products should provide advertising CD for all the products which are supplied in the market in this brand for their customers. Those CD should contain information about products that introduce them and along with the price and instructions of their products.

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