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**IMPACT OF BRAND EQUITY ON CUSTOMER EQUITY: A STUDY OF  
ELECTRONIC PRODUCTS IN IRAN**

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**ABSTRACT**

Customer equity can be considered as one of the important factors for evaluating the performance of companies. One of the factors that can result in improve of customer equity is the brand equity that includes four components such as brand awareness, brand association, brand loyalty and perceived quality. This paper attempts to examine the impacts of brand equity's features on customer equity. This research applied quantitative method. In this regard, 224 questionnaires were gathered and analysed. The achieved results of this study demonstrated that in case of electronic products in Iranian market, all of the four factors have positive and significant impact on customer equity. The results showed that the highest impact referred to perceived quality while the lowest referred to brand awareness.

**Keywords: Brand Equity, Customer Equity, Brand Association, Brand Awareness,  
Brand Loyalty, Perceived Quality, Electronic Industry, Iran**

**INTRODUCTION**

Electronic industry as same as other industries should take the attention of customers. It is clear that operating companies in electronic industry attempt to attract customers for long-time. Because of the fact that new lifestyle of customers is remarkably dependent to electronic products so we can emphasize on the sustainability of their purchase. One of the concepts that can influence purchase

behaviour of customers is brand equity that has been studied in many researches before.

There are various concepts in field of marketing management that study customers from many different aspects. For instance customer relationship (Baird and Parasnis, 2011; Kumar, 2010), customer satisfaction (Griffin et al., 2012; Luo and Bhattacharya, 2006), customers'

life time value (Khajvand et al., 2011; Venkatesan and Kumar, 2004), customer loyalty (Siddiqi, 2011; Liu et al., 2011), customer value (Blocker et al., 2011), as well as customer equity (Kim and Ko, 2012; Srinivasan and Hanssens, 2009; Rust et al., 2004) are considered as popular marketing management concepts. Among all of these mentioned concepts, customer equity is a critical concept that focuses on customer behaviour in a specific time period.

Iran is one of those countries that because of its major market most of the companies are motivated to compete in this market. Therefore during past years most of the well-known companies are operating in this company. This will motivate us to review role of brand equity (brand association, brand awareness, perceived quality and brand loyalty) on increasing the customer equity. Nonetheless, there is still ambiguity about the impact of brand equity's feature on customer equity in electronic industry of Iran. Hence, this study aims to examine how brand equity increase customer equity.

## 2. Literature Review

### 2.1. Customer Equity

The concept of customer equity has been emphasized in current researches due to their relationship with value of

organizational shareholders (Gupta et al., 2004). For instance, Gupta et al (2004) asserted that there is a positive and significant relationship between market value of an organization and customer equity. Particularly, collected data from five various organizations have been utilized and they identified that 1% of total development of customer equity will increase organizational value by 5%. Moreover, as Wiesel and Skiera's (2005) explained, there is a significant relationship between value and equity. According to the collected data from two internet firms, their total customer equity approximated the value of market. Therefore, in this regard, the customer equity and lifetime have relationship with organizational market value (Wong 2013; Kim and Ko, 2012; Hogan et al., 2002).

Many different studies have been accomplished on lifetime value of customers and equity model and many of these investigations have been done through using their model creation equation and using the mathematics to compute customers' lifetime and also customer equity (Wong, 2013; Kim and Ko, 2012; Sargeant, 2001; Rust et al., 2008; Barbarosogulu and Yazgac, 2000). For example, Cargeant (2001) noted that it contains four key aspects to assess

customer equity based on two specific methods:

A: Unit of Analysis

B: Time Perspective

Referred to time perspective it includes project future and historic value for computing the customer equity. The historic value concept means a valued context from customers within a company from past. On the other side, compared to historic value, the projected value is considered as the future worth of its customers that will be achieved during next few years. Other measurement methods are unit of analysis through which the companies will compute the customer equity both as individual or group dimensions.

Ruts et al. (2000) suggested an appropriate comprehensive knowledge and information on other suggestions presented by other experts through different mathematical equations for studying the customer behaviour exactly. Through calculating the customer equity in service sectors or airline segment and using the current models of equity, specification of such model was developed as below:

$$\text{Customer Equity (Customer Lifetime Value)} = \sum_{t=0}^T [(1 + d)^{-t} + F_{it} S_{it} \pi_{it}] \quad (1)$$

The personal and individual dimensions and also projected lifetime value have

been utilized. The formulated formula above used length of horizon planning (T), customer purchase in each single time period ( $F_{it}$ ), time period (t), and also average of customer spending for each visit ( $\pi_{it}$ ), and also other feature that was included in model was the company discount (d): since it is suitable for attracting the customers to purchase again. If the noted discount rate is too high so it will contribute to value decrease rate for lifetime of the customers. The other critical dimension is possibility of return ( $S_{it}$ ): till the time there will be many suppliers in market so there would be a broad choice range for customers. Due to so many reasons some of the customers may use a certain service or product for a long time and then they decide to switch to other services and products. Thus, while customers choose a certain brand or product, the possibility of return could be the same for them as well.

## 2.2. Brand Equity

Many previous investigations focused on brand equity term and its relevant definitions. Some of the famous researches from literature tried to define brand equity concept as a set of capabilities and properties relevant to a specific brand for example name and symbol which can impose beneficial or detrimental influences on creating the

values form different products and services (Manafi et al., 2011; Yasin et al., 2007; Aaker, 1991).

Additionally, Keller (1999) mentioned that brand equity is able to signify some certain marketing effects to a specific brand. Therefore, through considering positive aspects of brand equity it takes place if the customers are motivated to pay more for a disclosed attractive name to a specific product or service which has the same level of quality in comparison to other products (Bello and Holbrook, 1995). However, brand equity could be damaged if it is not being managed effectively. For instance, having weak customer service or quality can have negative impact on brand image that leads to sales volume reduction.

In addition Murphy (1998) mentioned one of the critical examples on brand as an equity type and imposing many laws for supporting the intellectual property.

His study led to many elaborate discussions and in those countries that had efficient legal systems, brand values have been considered for customers and producers both. For dealing with piracy, many countries set up laws for protecting the trademarks, patents, designs and copyrights. In addition, brand is assumed as a product that could be traded and

evaluated by financial values (Boyle, 2003).

According to another research (Murphy, 1998), explained that it is not uncommon to identify familiar listed brands in stock markets which could be sold or bought. Some famous brands including HSBC, Vodafone, Tesco, Marks and Spencer and Sainsbury have been listed all in FTSE 100 Index (London Stock Exchange, 2007). In addition, it was understood that volatility in stock market can impact purchase decision of customers and also increase or decrease in retail sales (Boyle, 2003). Besides, Boyle (2003) accepted this idea and asserted that brand equity is dependent to amount of customers who purchase regularly.

Many different discussions in literature demonstrated value of brand equity for both customers and companies. In case of customers, brand equity can provide them brand formation thus it can influence their choice in their purchase process level. Based on these studies, there is a high propensity level and also perception for those customers that purchase from a specific store always in comparison to those customers who are weak in perception.

Referred to the conducted research by (Aaker, 1991), to become familiar with brand and also previous experiences of

purchase, both can impact customers' perception. Moreover, Aaker (1991) noted that brand equity can provide high margins by means of decreased reliance and premium pricing according to promotional activities.

However, recent research (e.g. Huang and Sarigollu, 2012; Manafi et al., 2011) have highlighted different features for brand namely brand awareness, brand association, brand loyalty, and perceived

quality. Besides, they have high potential to affect customer equity. So, the proposed framework (Figure 1) of this study emphasizes on the relationship between brand equity and customer equity.

### 3. Research Method and Results

This research employed a quantitative approach. This study as a survey tries to examine the formulated hypothesis based on the developed framework (Figure 1).

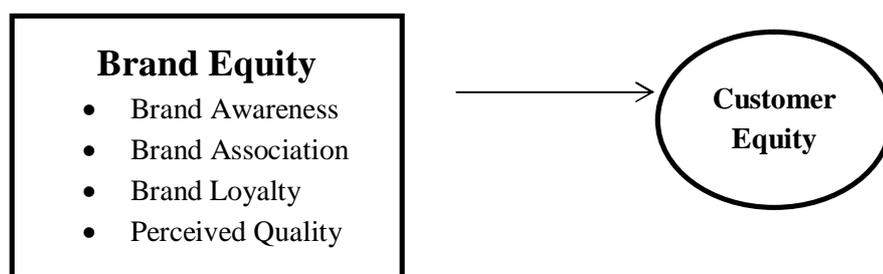


Figure 1: Proposed Framework

H1: Customer equity is affected by brand awareness significantly and positively

H2: Customer equity is affected by brand association significantly and positively

H3: Customer equity is affected by brand loyalty significantly and positively

H4: Customer equity is affected by perceived quality significantly and positively

For examining the formulated hypotheses, we used the primary data. These data has been gathered through questionnaire. The relevant items to questionnaire of brand equity are designed as Five-Point Likert Scale and are

generated from previous researches conducted by Kladou and Kehgias (2013). The related items to the customer equity have been adopted from conducted researches by Hyun (2009) which were based on the generated formula in previous studies.

The study population is all of the customers that purchase from 6 well-known electronic brands. In this regard, the main sales representatives of these companies in Tehran (in Iran) have been selected. The data collection process took 1 week to be accomplished and 224 questionnaires have been collected.

To analyse the gathered data, SPSS 22 were applied. The first test was reliability test by Cronbach's Alpha. According to this test there is an acceptable internal consistency for each variable because all of the values were greater than .70.

The results of Pearson correlation test demonstrated that all of the variables have significant relationships with each other.

The highest relationships with customer equity referred to perceived quality (.777) while the lowest relationship refers to brand awareness (.444).

To measure the impacts of independent variables on dependent variables, regression analysis was used. The results of regression analysis can be seen in the Table 1.

**Table 1: Regression Analysis's Results**

	Hypothesis	Expected sign	Unstandardized Coefficient	Standard Error	t-value	P-value	VIF
Constant			.181	.212	1.921	.012	
<b>Independent Variables:</b>							
Brand Awareness	H1	+	.134	.057	2.34	.032	2.21
Brand Association	H2	+	.248	.121	2.05	.041	1.78
Brand loyalty	H3	+	.381	.036	10.33	.000	1.33
Perceived Quality	H4	+	.455	.023	19.78	0.00	2.01
R Square			.766				
Adjusted R Square			.654				
F Ratio			170.242				
Significance of F			0.00				
N			224				

According to the results of the Table 1, R square is equal to .766, so 76.6% of variation in the customer equity can be accounted by brand equity's components.

The estimated VIF's values shows there is no multicollinearity among independent variables because all values are less than 5.

We are 95% confident that brand awareness has significant impact on customer equity because p-value is .032.

The estimated coefficient is equal to .134, so for every unit increase in brand awareness, customer equity will go up .134. Therefore, the first hypothesis (H1)

is accepted by this study. The obtained result is consistent with extant research conducted by Wong (2013), Kim and Ko (2012), and Hyun (2009).

We are 95% confident that brand association has significant impact on customer equity because p-value is .041.

The estimated coefficient is equal to .248, so for every unit increase in brand association, customer equity will go up .248. Consequently, the second hypothesis (H2) is accepted by this study. The obtained result is consistent with extant research conducted by Wong (2013), Kim

and Ko (2012), Manafi et al. (2011), and Hyun (2009).

We are 95% confident that brand loyalty has significant impact on customer equity because p-value is 0.00. The estimated coefficient is equal to .381, so for every unit increase in brand loyalty, customer equity will go up .381. Consequently, the third hypothesis (H3) is accepted by this study. The obtained result is consistent with extant research conducted by Kladou and Kehgias (2013), Huang Sarigöllü (2012), Manafi et al. (2011).

We are 95% confident that perceived quality has significant impact on customer equity because p-value is 0.00. The estimated coefficient is equal to .455, so for every unit increase in perceived quality, customer equity will go up .455. Consequently, the fourth hypothesis (H4) is accepted by this study. The obtained result is consistent with extant research conducted by Kladou and Kehgias (2013), Huang Sarigöllü (2012), Manafi et al. (2011).

Followed by above discussion, the results of regression analysis can be written as follow:

$$\text{Customer Equity} = .181 + .134 (\text{Brand awareness}) + .248 (\text{Brand association}) + .381 (\text{Brand loyalty}) + .455 (\text{perceived quality})$$

**CONCLUSION**

Customer equity can be considered as one of the important factors for evaluating the performance of companies. The reason is that companies should focus on purchase behaviour of their customers. One of the factors that can result in improve of customer equity is the brand equity that includes four components such as brand awareness, brand association, brand loyalty and perceived quality. The achieved results of this study demonstrated that in case of electronic products in Iranian market, all of the four factors have positive and significant impact on customer equity.

Future studies can utilize the framework of this research in other scopes as well. In addition, framework of this study could be modified through reviewing the relationships between brand equity components. On the other hand, there can be a significant relationship between different components of brand equity.

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