Measuring the Brand Equity of NGO’S in Case of MAHAK (the organization to support children suffering from cancer)

Arasb Ahmadian  
Searcher in Postdba, University Grenoble Alpes, France  
a.ahmadian@aftermail.ir

Manouchehr Ansari  
Associate Professor, University of Tehran, Tehran, Iran  
m.ansari@aftermail.ir

Frederic Bertrand  
Associate Professor, University Grenoble Alpes, France  
f.bertrand@aftermail.ir
Abstract

Brand equity considered as a cue to make judgments about products and their attributes. The issue of brand equity has emerged as one of the most crucial topics for customer-based perspectives in marketing management. So this study investigates the relation between brand equity and these four factors at MAHAK. The present research is an applied-descriptive research and the research project is a correlational research of the SEM type. To measure the brand equity of NGOs, MAHAK has been selected, as a case study. The statistical population of this research includes donors of MAHAK. In order to choose participants, random selection was performed among those who have cell phone numbers. From among 610 randomly chosen individuals 310 of them were reluctant to answer and 300 individuals were chosen as statistical population of this research. For measuring the brand equity, quantitative methods are used, focusing on the quantitative approach. The results showed that all independent research variables have significant effect on dependent research variable.

Keywords: Brand, Brand equity, NGO, Consumer-Based Brand Equity (CBBE)

Resumen

El valor de la marca se considera un indicio para hacer juicios sobre los productos y sus atributos. El tema del valor de la marca se ha convertido en uno de los temas más cruciales para

Palabras-chave: Marca, Equidad de marca, ONG, Equidad de marca baseada no consumidor (CBBE)

Medición del valor de marca de las ONG en el caso de MAHAK (La organización para ayudar a los niños que padecen cáncer)

Resumen

El valor de la marca se considera un indicio para hacer juicios sobre los productos y sus atributos. El tema del valor de la marca se ha convertido en uno de los temas más cruciales para
las perspectivas basadas en el cliente en la gestión de marketing. Entonces, este estudio investiga la relación entre el valor de marca y estos cuatro factores en MAHAK. La presente investigación es una investigación aplicada-descriptiva y el proyecto de investigación es una investigación correlacional del tipo SEM. Para medir el valor de marca de las ONG, se ha seleccionado a MAHAK, como un caso de estudio. La población estadística de esta investigación incluye donantes de MAHAK. Para elegir a los participantes, se realizó una selección aleatoria entre los que tienen números de teléfono celular. De entre 610 individuos elegidos al azar, 310 de ellos fueron reacios a responder y 300 individuos fueron seleccionados como población estadística de esta investigación. Para medir el valor de la marca, se utilizan métodos cuantitativos, centrados en el enfoque cuantitativo. Los resultados mostraron que todas las variables de investigación independiente tienen un efecto significativo en la variable de investigación dependiente.

**Palabras clave:** marca, valor de marca, ONG, valor de marca basado en el consumidor (CBBE)

**Introduction**

In the 21st century, NGOs have played an increasingly prominent role in the development sector, widely praised for their strengths as innovative and grassroots-driven organisations with the desire and capacity to pursue participatory and people-centred forms of development and to fill gaps left by the failure of states across the developing world in meeting the needs of their poorest citizens. While levels of funding for NGO programmes in service delivery and advocacy work have increased alongside the rising prevalence and prominence of NGOs, concerns regarding their legitimacy have also increased.

Aaker (1991) defines brand equity as “A set of brand assets and liabilities linked to a brand, its name and symbol, that adds to/ or subtracts from the value provided by a product or service to a firm and/or to the firm’s customers”.

Brand equity refers to a value premium that a company generates from a product with a recognizable name when compared to a generic equivalent. Companies can create brand equity for their products by making them memorable, easily recognizable, and superior in quality and reliability. Mass marketing campaigns also help to create brand equity (Asli and Tasci, 2018). Brand equity refers to the importance of a brand in the customer’s eyes, while brand value is the financial significance the brand carries. Both brand equity and brand value are educated estimates of how much a brand is worth (Chekalina et al, 2018).

The conceptualization and measurement of brand equity are diverse and inconclusive (Liu et al., 2017). David Aaker (2008) states: "Even now some entrepreneurs find it hard to
identify or properly evaluate brand attributes”. A glaring paucity of a measuring instrument for place branding effectiveness and place brand equity still remains (Bose et al, 2018).

Commonly, when referring to destination brand equity, four dimensions are taken into consideration: awareness, image, quality and loyalty. Building on product and corporate brand equity and the definition of destination branding, the present paper includes a marketing approach towards developing a structural model incorporating a fifth dimension; that of cultural brand assets (Kladou and Kehagias, 2014).

Brand equity can be analyzed and measured from both, a customer/consumer and a financial perspective. From the viewpoint of the customer, brand equity constitutes the attraction to a particular product that is generated by the brand name rather than the attributes of that same product. Taking this perspective, brand equity would be: “The differential effect that brand knowledge has on a customer’s response to the marketing activities of the brand” (Keller & Lehmann, 2006).

In conceptualizing customer-based brand equity, the four components; perceived quality, brand awareness, brand image (association), and brand loyalty are the most widely accepted and implemented by scholars (Aaker, 1991, 1996; Keller, 1993; Motameni and Shahrokhi, 1998; Yoo and Donthu, 2001) A brand provides values in different aspects. Firstly, a company can position brand at a premium price. Secondly, a good brand becomes the customer’s preferences and standard settings. Thirdly, it provides business value as a brand can be traded.

According to Keller and Lehmann (2006), companies need to have a clear understanding of the equity of their brands in order to be able to manage them in an appropriate way. According to Aaker, brand equity can create value to both the firm and its customers. It can generate marginal cash flow for the firm in a number of ways. Additionaly, For customers, brands can provide information and confidence in purchase decisions, as well as enhance customers satisfaction through the brand assets of perceived quality and brand associations (Aaker, 1991).

MAHAK has experienced a high development rate between the years 2007 to 2011 in providing medical and support services on one hand and fund raising in the other hand. The number of supported children have increased from 3405 to 5037. Meanwhile, financial resources have grown from 2.9 million US$ to 30.2 million US$. While, public awareness has increased profoundly to 56% from 21%. As a result, MAHAK attracts various reputable firms for co-branding in corporate projects such as, Corporate Social Responsibility (CSR), Cause Related Marketing (CRM) and sponsorship. In private sector Companies, “For connecting the
CSR activity and purchase motivation, CSR activities show in the scene of the product sells and consumers use (Y. Nakamura, 2016)”. The sources of brand equity helps the CEO to obtain supervision and focus on what drives their brand equity. The outcomes of brand equity help managers to detect how and where brands add value. Hence, MAHAK needs to focus on measurements of brand equity based on scientific methods.

**Theoretical fundamentals and research background**

According to Webster (2007), a logotype or ‘logo’ can refer to a single piece of type or a single plate faced with a term, however, it is used by Henderson and Cote (1998) to refer to the graphic design that a company uses, with or without its name, to identify itself and its products. The Icelandic synonyms ‘oom’ and ‘brond’ meant ‘burning’, ‘fire’, ‘embers’ or ‘fiery vapour’. A reddening disease of grain called ‘rubigo’ by the Romans still bears the name ‘brand’ in Germany to this day. Therefore, it is likely that there is a connection between ‘brond’ and ‘brand’, as this terminology was also utilized by the Anglo-Saxons as a term for ‘ember’ (Schlutter, 1898).

According to Kotler, Keller and Cunningham (2006, p. 275), ‘the earliest signs of branding for these purposes in Europe were the medieval guilds’. Requirements that crafts people put trademarks on their products to protect themselves and consumers against inferior quality’. This idea of trade marking for protection has become important in current society as a way to protect and sustain branding practices. According to George (2006, p. 175), ‘it regulates who can use communicative signs such as; words, names, logos, colors, shapes and smells, and how those marks can be used’.

Brand equity has been defined through many dimensions and perceptions: the objective brand in personal characteristics and brand image, and subjective brand in brand attitude (Blackston, 1995); brand value in tangible and intangible values (Kamakura & Russell, 1993); brand strength within customer perception and behavior (Srivastava & Shocker, 1991); and the discovery of a halo of brand equity dimensions that measure performance, social image, commitment, value and trustworthiness (Lassar, Mittal, & Sharma, 1995).

Arnett et al. (2003) suggests that brand equity is a multi-dimensional construct, including; name awareness, retailer association, service quality, and store loyalty. Yoo and
Donthu (2001) use confirmatory factor analysis to examine brand equity and show that brand equity is a three-dimensional construct, combining brand awareness and brand associations into one dimension.

Bagheri et al. (1392) conducted a study on the effect of a brand name and experience on customer loyalty in a framework of trust and obligation to brand. They used a questionnaire to collect the data and LISERL software to analyze the data. Population of the study was 384 consumers of household appliances in Mazandaran. The results of the study indicated a relationship between a brand name and experience of customers’ loyalty to the household appliances.

Bani Khedmat et al. (2013) conducted a study on the effect of the brand identity dimensions on satisfaction of automobile customers in Ardabil. The results showed that all five dimensions of brand personality (honesty, competency, strength and power, sophistication, attractiveness, and excitement) had a direct and positive effect on customer satisfaction with the Iranian automobiles.

Bijuna and Sequeira (2016) investigate the impact of brand equity on the operational performance of businesses in the Indian FMCG industry. The research study adopts descriptive and exploratory approaches. The results indicate that there is correlation between brand equity and operational performance of business. The practical implications of the findings are that brand equity has to be effectively managed for improved operational performance of business. Choi et al (2017) develop an approach on how to estimate a restaurant’s brand equity not only by utilizing the secondary market data but also by incorporating the unique characteristics of restaurant firms. By proposing a restaurant-specific model to estimate brand equity, this study contributes to the restaurant literature and to the industry as a whole.

Su and Chang (2018) empirically investigate the factors affecting consumer’s fast fashion brand loyalty by examining US college students’ perceptions and loyalty toward fast fashion. Using consumer-based brand equity approach, a research model which examines the factors affecting consumer’s brand loyalty in the fast fashion context was proposed. It was hypothesized that consumer’s perceptions of fast fashion, including brand awareness, perceived quality, perceived value, brand personality, organizational associations, and brand uniqueness, affect consumer brand loyalty. Results reveal that for the US college students, brand awareness, perceived value, organizational associations, and brand uniqueness are the contributing factors to generating consumer’s loyalty toward fast fashion brands.
Chekalina et al (2016) proposes a customer-based brand equity model for destinations, which consists of five dependent constructs, including awareness, loyalty, and three destination brand promise constructs constituting the inner core of the model, namely, destination resources, value in use, and value for money. The model was repeatedly tested for the leading Swedish mountain destination, by using a linear structural equation modeling approach. Findings confirm the path structure of the proposed model.

Kotsi et al (2018) reports the modelling of consumer-based brand equity (CBBE) for Dubai, the first CBBE study to do so in the context of a stopover destination. The CBBE model was tested using survey data from samples of consumers in two geographically distant markets; France (n=365) and Australia (n=403). The findings suggest destination brand awareness, destination brand image and destination brand value are positively related to attitudinal destination loyalty. However, destination brand quality was not positively associated with loyalty. As a relatively new stopover destination for long haul travellers, Dubai is perceived more positively by previous visitors than those who have never visited the destination.

Dedeoğlu et al (2018) develop a more comprehensive customer-based destination brand equity model, compared to those examined in previous studies. In the light of the findings, all antecedent variables positively affect their consequence variables. By developing a more comprehensive CBDBE model, the present study contributes to helping destination management organizations to understand the relationships among the factors affecting the tourists' general perceptions of a destination. The fact that the factors generally ignored in the previous studies within the scope of CBDBE were examined in the present study, and that these factors were analyzed through a single model, eliminates a significant shortcoming in this field.

Choe and Zhao (2013) said: “Brand awareness is regarded as the most essential factor for improving brand equity. That is, improving brand awareness directly or indirectly influences brand association, brand quality and brand loyalty and increases the brand equity”. Researches on the brand equity concept and its dimensions have been mostly investigating within the goods and services context. Konecnik and Gartner (2007) applied the customer-based brand equity concept to a service perspective. Their conceptual model consists of four dimensions: awareness, image, perceived quality and loyalty.

Generally spoken and formally written sources in Iran, have a wider definition:”NGO association that, individuals work and provide non-profit services such as; relief, protection,
health, education, research and etc. These organizations attracting voluntary contributions to the community and they don't have any political parties" (Katirai, 2005).

Papasolomou and Vrontis (2006) advocate high brand equity as being evident to the extent that organizations exhibit characteristics such as; higher brand loyalty, name awareness, perceived quality, strong brand associations and credibility. (de Chernatony & Cottam, 2006).

When academic and practitioner interest, in measuring the impact of brand management as manifested in brand equity increases, (e.g. Pappu et al., 2005; Srinivasan, Park, & Chang, 2005) de Chernatony and Cottam (2006) suggests that, It's better that a range of financial and non-financial measures collectively provide the necessary insights. It is believed that multiple perspectives are beneficial when number of different stakeholders exist. Combination of customers and shareholders could be a sample of these purposes.

**Research Question**

How to measure brand equity of a NGO with focus on MAHAK organization as an Iranian NGO?

**Research Conceptual Model**

According to Aaker (1991), brand equity provides value to customers by improving their interpretation and processing of information, confidence in the purchase decision, and satisfaction. This model also provides value to the firm by improving efficiency and effectiveness of marketing programs, prices and profits, brand extensions, trade leverage, and competitive advantage. Besides, the practitioner and marketing managers, are highly familiar with consumer based measures that use data commonly collected in research studies. Hence they will find them easy to understand and use. In addition, this model can measure brand equity for product, service or organization's customers (Aaker, 1991). Therefore, brand equity for MAHAK can be measured as a service base organization.

The company delivers a service or a good to customer (/consumer), and customer (/consumer) pays the price to the company. In non-profit organizations three entities are involved: the organization, the donor and the end user who receives the service which are interacting indirectly in two distinct manners. The organization provides a service to its target group (end users) and receives the necessary resources for this service from the donors. In figure 1 these two processes are compared:
The process in non-profit organizations which is depicted in figure 2-1, shows that in these organizations the demand of deriving services and providing resources are met in two different paths Establishment of an efficient relationship between these two paths, makes the business model. Figure 2 shows the business model in non-profit organizations such as MAHAK. According to this figure, the conceptual model of non-profit organizations consists of two basic pumps, fundraising pump and public relation pump. The function of public relations is to properly convey how resources are utilized, and to what extent the outcome of operations have met the objectives of the donors in order to gain their trust. Hence increasing donations. The fundraising pump is to provide financial resources and delivers them to the end users in the most effective way. Obviously, efficiency of a non-profit organization is dependent on the interaction and proper function of these two basic pumps.
Methodology and Research Design

In the purpose of brand equity, many scientists have paid attention to conceptual models. In this part of the research, details of various related models shall be described. The present research is an applied-descriptive research and the research project is a correlational research of the SEM (Structure Equation Modeling) type. In this research relations among variables are discussed in the form of Ex-Post facto.

To realize and measure the brand equity of NGOs, MAHAK has been selected, as a case study. This research is to illustrate unique characteristics in specific features, appearing highly relevant to investigate the essential part of brand equity. For measuring the brand equity, quantitative methods are used, focusing on the quantitative approach. The quantitative method consists of semi-structured interviews.

This quantitative method is implemented through a questionnaire, with the sole purpose to support the interviews. Interviews are backed up by gathering supportive data, to enhance the credibility and reliability of the situation. To achieve a proper understanding of the subject and its complexity, we focused on one non-governmental organization in Iran, The society to support children suffering from cancer with known with its Persian acronym MAHAK.

The instrument In this research includes, Yoo and Donthu’s Brand Equity Scale questionnaire (Yoo and Donthu, 2001). The four proposed dimensions consisting of; brand awareness, brand associations, perceived quality and brand loyalty for MBE and one proposed dimension for OBE (Yoo and Donthu, 1997) in accordance to customer based brand equity model of Aaker (1991).

To analyze the collected data, SPSS software version 20 was used. Descriptive indices of research variables and their correlational matrix are calculated. Aditionally, to investigate ex post facto relations among variables, Structural Equation Modeling method was taken into consideration. To test the theoretical model of research, SmartPls and Visual PIS software were used.

According to Yoo and Donthu’s Brand Equity Scale questionnaire (Yoo and Donthu, 2001) there is a need for respondents to know the MAHAK organization. For this reason, the database of DRM (Donor Relation Management) software of MAHAK was used for data collection. This database has near 300,000 members. It is consist of personal information of people who known MAHAK.
It means they have had minimum one contact (in any form) with this organization. Thus, they are registered in the database of DRM software. Six hundred and ten members have been selected from this database. The samples are chosen randomly by the DRM software, provided that they have cell phone numbers.

From among 610 individuals chosen randomly by the software:

- 310 were unwilling to participate in this research
- 300 participate in this research and answered to questions by a telephone interview. The responds of 300 participants with the rating of each response being separated, are entered into an SPSS file.

**Confirmatory Factor Analysis**

In this research, the factor load is accurate enough to measure a specific construct or latent adjective. (Natalie & Bronstein, 1994, as quoted in Chin,1998) In table 1 the values for factor loading, weight, mean, Standard Deviation and indicators of each one of latent variables are given. For confirmatory factor analysis of the mentioned questionnaire, Visual PLS software is used. Figura 3 shows factor loadings, mean, SD, residual and item weights for reviewing the validity of the questionnaire.

### Table 1
**Reliability and Validity Factors of Questionnaire**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator</th>
<th>Mean</th>
<th>SD</th>
<th>Loading</th>
<th>Residual</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA</td>
<td>Q01</td>
<td>4.186667</td>
<td>1.059353</td>
<td>0.908700</td>
<td>0.174300</td>
<td>0.550300</td>
</tr>
<tr>
<td></td>
<td>Q02</td>
<td>3.916667</td>
<td>1.064660</td>
<td>0.908700</td>
<td>0.174300</td>
<td>0.550200</td>
</tr>
<tr>
<td>BL</td>
<td>Q03</td>
<td>4.106667</td>
<td>1.028989</td>
<td>0.839100</td>
<td>0.296000</td>
<td>0.400600</td>
</tr>
<tr>
<td></td>
<td>Q04</td>
<td>3.960000</td>
<td>1.190149</td>
<td>0.881800</td>
<td>0.222400</td>
<td>0.421000</td>
</tr>
<tr>
<td></td>
<td>Q05</td>
<td>3.340000</td>
<td>1.244815</td>
<td>0.782900</td>
<td>0.387000</td>
<td>0.373800</td>
</tr>
<tr>
<td>PQ</td>
<td>Q06</td>
<td>3.706667</td>
<td>1.165540</td>
<td>0.906500</td>
<td>0.178300</td>
<td>0.551600</td>
</tr>
<tr>
<td></td>
<td>Q07</td>
<td>3.943333</td>
<td>0.967769</td>
<td>0.906500</td>
<td>0.178300</td>
<td>0.551600</td>
</tr>
<tr>
<td>BAS</td>
<td>Q08</td>
<td>3.673333</td>
<td>1.066339</td>
<td>0.849900</td>
<td>0.277600</td>
<td>0.404400</td>
</tr>
<tr>
<td></td>
<td>Q09</td>
<td>3.640000</td>
<td>1.149553</td>
<td>0.877000</td>
<td>0.230800</td>
<td>0.417300</td>
</tr>
<tr>
<td></td>
<td>Q10</td>
<td>3.060000</td>
<td>1.186490</td>
<td>0.781200</td>
<td>0.389700</td>
<td>0.371700</td>
</tr>
<tr>
<td>OBE</td>
<td>Q11</td>
<td>3.286667</td>
<td>1.175768</td>
<td>0.705200</td>
<td>0.502700</td>
<td>0.270700</td>
</tr>
<tr>
<td></td>
<td>Q12</td>
<td>3.476667</td>
<td>1.154947</td>
<td>0.840900</td>
<td>0.292900</td>
<td>0.322800</td>
</tr>
<tr>
<td></td>
<td>Q13</td>
<td>3.570000</td>
<td>1.052994</td>
<td>0.863200</td>
<td>0.255000</td>
<td>0.331300</td>
</tr>
<tr>
<td></td>
<td>Q14</td>
<td>3.683333</td>
<td>1.113788</td>
<td>0.809900</td>
<td>0.344100</td>
<td>0.310800</td>
</tr>
</tbody>
</table>
Research Structural Model Test (Hypotheses Test)

Testing theoretical pattern of research and research hypotheses in PLS method is possible through examining path coefficients (factor loadings) and R2 values (Seyyed Abbaszade and et al, 2012). In addition, bootstrap method (with 300 sub-samples) was used to calculate $t$ statistical values to determine significance of factor loadings. Factor loadings are used to specify portion of every one of independent variables in explanation of dependent variable and R2 values indicate. Explaining variance of dependent variable by independent variables.

Furthermore, Q2 coefficient of Stone-Giesser was used to check out the ability to predict independent variables from dependent variables. Positive values of this coefficient indicate the ability to predict (Vinzi, Henseler & Wang, 2010) in regards to explained variance values of 0.67, 0.33, and 0.19 of R2 PLS model, which were respectively noticeable, average and weak (Seyyed Abbaszade and et al, 1391). In figure 3 tested model of the present research, and in Table 2 results of structural model are presented.

Figure 3: Research Tested Model

Figure 3 indicates relations among variables, path coefficients and factor loading values.

According to the results obtained from figure 3 and structural model test:
The effect of BA on OBE is 0.18 and positive,
The effect of BL on OBE is 0.38 and positive,
The effect of PQ on OBE is 0.12 and positive,
The effect of BAS on OBE is 0.18 and positive.

Figure 3 also indicates that, components of MBE variable are able to predict 48 percent of dependent variable or OBE changes. This value according to the criterion of Vinzi et al. (2010) is notable in over 33 percent. Moreover, in figure 4, results of Bootstrapping test are given to examine significance of factor loadings and beta coefficients.

![Figure 4: Results of Bootstrapping Test](image)

Results of figure 4 show that all factor loadings and Beta coefficients are significant. This will be discussed in the following parts.

In table 2 direct effects, beta coefficients and explained variance of variables are given in the form of investigating hypotheses of main effects model. According to the results of table 2, positive values of Q2 index in all variables indicates appropriateness of the research model, which is given in figure 2 in detail. Additionally, table 2 shows that all hypotheses of the present research are significant and supported. This will be discussed later.
Table 2
Direct Effects, Beta Coefficients and Explained Variance of Variables in the form of Main Effects Model

<table>
<thead>
<tr>
<th>No</th>
<th>Indices</th>
<th>Hypothesis</th>
<th>Beta</th>
<th>T</th>
<th>R²</th>
<th>Q²</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BA--&gt;&gt;OBE</td>
<td>0.18</td>
<td>3.15</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>BL--&gt;&gt;OBE</td>
<td>0.38</td>
<td>6.33</td>
<td>***</td>
<td>-</td>
<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>PQ--&gt;&gt;OBE</td>
<td>0.12</td>
<td>2.26</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>BAS--&gt;&gt;OBE</td>
<td>0.18</td>
<td>2.91</td>
<td>**</td>
<td>0.48</td>
<td>-</td>
<td>Supported</td>
</tr>
<tr>
<td>5</td>
<td>BA</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.82</td>
<td>Fitness</td>
</tr>
<tr>
<td>6</td>
<td>BL</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.70</td>
<td>Fitness</td>
</tr>
<tr>
<td>7</td>
<td>PQ</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.82</td>
<td>Fitness</td>
</tr>
<tr>
<td>8</td>
<td>BAS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.70</td>
<td>Fitness</td>
</tr>
<tr>
<td>9</td>
<td>OBE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.31</td>
<td>Fitness</td>
</tr>
</tbody>
</table>

P<0.05*, P<0.001***, P<0.01**

Results of table 2 show that fitting indices of CV Red and CV Com are positive. The positivity of these indices indicates appropriate fitting of the model.

Figure 5: Model Fitting Indices

With %99 of assurance BAS, has a significant effect on OBE (T=2.91, B=0.18, P=0.01). Therefore, research hypothesis number 4 is significant and is confirmed.
In table 3 fitting indices of research measurement and structural model are given. According to these indices it can be concluded that the tested model has a suitable fitting.

### Table 3
Fitting indices of Research Structural and Measurement Model

<table>
<thead>
<tr>
<th>Structural Model Fit Index</th>
<th>Measurement Model Fit Index</th>
<th>Comparative Fit Index</th>
<th>Absolute Fit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.90</td>
<td>0.94</td>
<td>0.91</td>
<td>0.39</td>
</tr>
</tbody>
</table>

### Discussion and Conclusion

The main purpose of this research is to investigate the effect of dimensions of brand equity proposed in Aaker Model (brand awareness, perceived quality, brand loyalty and brand image) about the brand equity in this a case. The case is 'The Society to Support Children Suffering from Cancer' with short name MAHAK.

The statistical population of this research includes donors of MAHAK (300,000 individuals). In order to choose participants from among 300,000 people, random selection was performed among those who have cell phone numbers. This was obtained by using DRM software. From among 610 randomly chosen individuals 310 of them were reluctant to answer and 300 individuals were chosen as statistical population of this research.

The result of the first hypothesis is showed that brand awareness has significant effect on brand equity. The level of the significant effect of brand awareness on brand equity is equal to 0.18. The result obtained from this section of research is in accordance with the research results of Parhizgar and Ebrahimi Abed (2012), Aaker (1991), Clair (2003), Yoo, Donthu & Lee (2000), Imani khoshkho and Ayyubi Yazdi (2010). When the consumer decides to buy a product, at first, recovers the data he/she has in his mind to compare a collection of brands with each other.

According to the model of the hierarchy of effects, the role of marketing is, finding a place for the brand in this collection of brands. Pursue customers/consumers to try the product in any case (Light, 1993). Brand must be part of the desired collection of consumer and be presented in the consumer’s decision-making process. Therefore, to be chosen, the brand should create a high level of awareness among the customers. Brand awareness can create value for the brand. For instance, recognizing the name of a brand by customer can create a sense of familiarity.
Services, due to their complicated nature compared to products, are assessed more. Therefore, familiarity can be very effective in persuading to purchase the service bran. (Woodward, 2000). It is proved that individuals having prior knowledge associated with a particular product category, can remember some features of the product approximately twice more than those who don’t have prior knowledge of product category. Also, by associations linking to a brand, connection points cause a specified image of the brand to be developed (Woodward, 2000).

The result of the second hypothesis of research is showed that brand loyalty has a significant effect on brand equity. The level of the significant effect of brand loyalty on brand equity is equal to 0.377. The result obtained from this section of research is in accordance with the research results of Parhizgar and Ebrahimi Abed (2012), Aaker (1991), Clair (2003), Yoo, Donthu & Lee (2000), Imani khoshkho and Ayyubi Yazdi (2010).

According to Aaker (1992), having very loyal customers can reduce total marketing costs of a brand and reduce the need of efficient advertisement. It also, can create a profit-making stream for an institute. Kotler (1984) believes that acquisition cost of a new customer is five times more than the cost spent to keep the existing customer satisfied and happy.

The result of the third hypothesis of research is showed that perceived quality has significant effect on brand equity. The level of the significant effect of perceived quality on brand equity is equal to 0.121. The result obtained from this section of research is in accordance with the research results of Aaker (1991, 1996), Yoo and et al (2000,2002), Atilgan (2006), but, is in contrast with findings of Gale and et al (2007). Perceived quality is defined as : "perception of customer from quality or general priority of a product/service compared with other products/services in the market and considering the goal the product/service has".

According to Kotler (1984) high quality economic units have more income, because high quality allows increasing the price. Also, they enjoy the advantages of repeated shopping, customer loyalty and positive word of mouth advertisement. (Kotler, Translated by Foruzande, 2003) Thus, it is suggested that companies considering the mentioned advantages try to keep favorable quality. This is a competitive necessity, and at the present time many companies use their customer-oriented quality as a powerful strategic tool. They satisfy customers by continuous and profitable provision of their requirements and priorities. Kotler has focused on the internal relations among service/product quality, customer satisfaction and company profit-making.
The result of the fourth hypothesis of research is showed that brand image has significant effect on brand equity. The level of the significant effect of brand image on brand equity is equal to 0.377. The result obtained from this section of research is in accordance with the research results of Parhizgar and Ebrahimi Abed (2012), Aaker (1991, 1996), Clair (1993,1996), Yoo, Donthu & Lee(2000). Brand associations help information process and recovery. Brand associations make a huge amount of data available to be indicative of the provided product, therefore allows the consumer easily process and recover the data. (Aaker, 1991)

The results of the fifth hypothesis of research is showed that brand loyalty is stronger than other factors in non-profit organization and especially in MAHAK. The Beta Coefficients effect of brand loyalty on brand equity in the form of Main Effects Model is equal to 0.38. This index for brand awareness, perceived quality and brand associations are 0.18, 0.12 and 0.18. The result obtained from this section of research has a little difference with the research results of Aaker (1991, 1996), Clair (1993,1996), Yoo, Donthu & Lee(2000).

This difference is related to the nature of non-profit and charity organization. David Aaker (1991) said; "brand loyalty is qualitatively different from the other major dimensions of brand equity in that it is tied more closely to the use experience." It means, CEOs of non-profit organization have to focus on brand loyalty as the most important opportunity for future fundraising. According to business model of MAHAK (2.18.1 in this research), this factor is related to the public relations department.

References


Chekalina, Tatiana; Fuchs, Matthias; Lexhagen, Maria (2018). Brand Equity Modeling. Tourism Analysis, Volume 23, Number 1, 2018, pp. 93-107(15).


Light, L. (1993). At the center of it all is the brand: Promotion has bigger role than ads, but "short term" bribes are suicidal. Advertising Age, No. 13.


