An Investigation of the Relationship between Services Marketing Mix Elements and Brand Equity (GUILAN’s Technical and Vocational Schools)

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ABSTRACT

Value of a product is more when it has a brand. Such increase in value is, in fact, attributed to special value of the brand. When brand equity is increased, customers will express positive behaviors to the product or service. Therefore, companies are able to increase their competitive conditions and financial performance by means of establishing a powerful brand. This article is aimed at investigation of the relationship between service marketing mix elements and special value of the brand of educational institutes. Statistical population of this research includes trainees at eastern GUILAN’s technical and vocational schools possessing powerful brands. The number of samples under investigation is 260 subjects. This study is a practical research, whose methodology is descriptive-survey and a correlational-type. Samples are randomly selected and questionnaires are employed to collect required data. Since variables are normally distributed, spearman correlation coefficient is used to test the hypotheses. Results indicate that service marketing mix has a significant relationship with brand equity and its dimensions. Moreover, the element of physical evidence has the highest relationship with brand equity, perceived quality, and loyalty to brand. And, the element of educational services has the highest relationship with brand awareness.

KEY WORDS: Service marketing mix, brand equity, technical and vocational schools.

INTRODUCTION

In the present-day competitive atmospheres, this is important to achieve a position so stamped in the customers’ minds that they find themselves committed to the company. Among the factors which assist attaining such a position is a company’s brand equity (Abbasi et al., 2012). One of the most significant assets of each company is its brand. The higher the value of the brand in consumers’ minds, the more capable the company would be to achieve more gains out of its consumers. Brand equity is one of the assets that both maintains the company’s value and acquires customers’ loyalty (Karbasi Var and Yardel, 2011).

Brand equity was one of the most noted marketing concepts in the past decade, with one of the reasons for such reputation being its strategic role and importance in attainment of competitive advantage. In the event that brand equity is really and accurately measured, it can be employed as a suitable standard for assessment of long-term effects of marketing decisions (Atilgan et al., 2010). Brand equity is a core concept in marketing and most of its definitions are based on the hypothesis that power of brands is molded in the minds of consumers. Thus, measurement of brand equity is important to get insight into its impacts on customers’ behaviors and features (Bui et al., 2013). Presently, customer-driven brand equity has managed to achieve tremendous attention by marketing scholars. Until mid-1990s, however, limited research was conducted to examine the relationships among marketing mix elements and brand equity. Barvise (1993) believed that quantitative attention to investigate the impact of marketing activities on the topic of brand equity has been scarce, despite great attention by researchers thereto. He suggested that scholars have been so far more inclined to examine the role and importance of brand rather than the resources established by brand equity and its development. According to Aaker Model, brand equity is a multilateral concept; although, in addition to investigating impact of such aspects on brand equity, effects of other factors such as marketing mix elements, mental image from the product, and manufacturer of the product should be examined (Chattopadhyay et al., 2010).

Getting insight into the issue that which of the marketing mix elements has the highest impact on brand equity can help brands develop and better execute their strategies. Results of studies carried out by Yoo et al. (2000), Chattopadhyay et al. (2010), Kim and Hyun (2011), Abbasi et al. (2012), Nopasand et al. (2013), and others affirm the relationship between marketing mix elements and companies’ special brand value. Unhappily, although this is exceeding than thirty years of constant studies to promote the deepness of brand literature in the Europe and the U.S., this concept is still neophyte in Iran. Such failure to address areas like brand, brand management, and brand equity has deprived the Iranian market from grasping such an excellent opportunity.

Given the multiplicity of open schools supervised by the Technical and Vocational Organization and intense competitions therein, the issue of brand and brand power is of paramount importance for such schools: possession of a powerful brand as a competitive advantage. Notwithstanding, the research on educational institutes’ brands is slim, and
this study, considering the high importance of investigating the relationship among marketing mix elements and brand equity, is intending to examine this relationship, providing answer to the question: “Is there any relationship among service marketing mix elements and brand equity for technical and vocational schools? If yes, which one of such elements has the highest relationship with brand equity and its aspects?”

Researcher is going, according to the consumers’ viewpoints toward marketing mix elements and brand equity in technical and vocational schools, to examine the relationship between the two topics and present suggestions aimed at improvement of the schools’ brand status using their marketing mix. Thus, the main objective of the present study is to assess the relationship between service marketing mix elements and brand equity, along which an assessment of the relationship among these seven elements with three dimensions of brand equity would be accomplished.

**Theoretical Basics of the Research**

- **Brand equity**
  
  Brand equity is the value which a brand adds to product. Generally speaking, brand equity is the perception of a consumer out of the whole advantages and superiorities that one brand possesses compared to its counterparts (Gil et al., 2007). Brand equity is defined as the difference in customers’ choice between branded and unbranded products whose characteristics are identical (Yoo et al., 2000). Lassar et al. (1995) expresses the brand equity as a consumer’s prioritization from one brand compared to other brands in an identical level of products. Brand equity is described by the British Marketing Science Institute as a collection of associations and behaviors made by brand customers, channel members, and main company that enable the brand to obtain higher sales volumes and wider gross profits as to an unbranded commodity (Parhizgar and Ebrahimi Abed, 2012). Keller (2003) defines brand equity as a distinct effect of brand knowledge on consumers’ actions and reactions toward brand marketing.

  Evaluation models divide brand equity into three general categories driven by financial concepts, by company, and by consumers. This viewpoint focuses on the customer’s knowledge about brand, which is reflected in brand awareness, brand associations, and customer’s mental image out of the products and company. Customer-driven brand value measures awareness, viewpoints, associations, and loyalty of the customers toward the brand (Keller and Lehman, 2006).

  According to Aaker model, brand equity has four dimensions as viewed by the consumers:

  - Perceived quality: Zeithaml defines perceived quality as a perception of the consumer from total quality or priority of a service/product over other available options. High perceived quality directs consumers toward selection of a trademark than other rivals (Parhizgar and Ebrahimi Abed, 2012). The definition which is frequently presented by scholars includes the customers’ judgment about advantage, superiority, creditability, and difference of a brand compares to other rival brands (Rahimnia and Fatemi, 2012). In fact, perceived quality does not display real quality of a product, but the customers’ mental assessment out of it. Perceived quality is a competitive necessity, and companies have presently turned to customer-driven quality as a strategic weapon (Atilgan et al., 2007).

  - Brand awareness: Aaker believes that brand awareness can be defined as consumer’s ability in identification or remembrance of a brand in a certain product level such as Coca Cola (Gil et al., 2007). Keller regards brand awareness as a tier of awareness and recognition whereby the consumers recognize, remember, and identify the brand as well as associated products and services. He thinks that brand awareness refers to the intensity by which features of a product are interconnected in the consumers’ minds, enabling them to remember the brand at different conditions, as a necessity arises (Rahimnia and Fatemi, 2012).

  - Brand associations: According to Aaker, brand awareness is closely related to brand association. He defines brand association as a relation to a brand in memory (Ebrahimi et al., 2010). Keller (2003) expresses that each new experience creates or changes a brand for people under association. Brand association should be strong enough to exert a positive impact in brand equity. It can also influence on the manner a consumer searches to find his/her desired products. In this research, brand association is not regarded as separated from brand awareness.

  - Brand loyalty: Brand loyalty may be defined as the level whereby a customer expresses positive attitude toward a brand, wishes to continue his/her chain of purchases, and established loyalty thereto. Brand loyalty, in reality, is a commitment to make re-purchases (Gil et al., 2007). Keller asserts that one of the features that show a brand has a powerful trademark special value is intense loyalty by customers thereto. This definition is congruent with Aaker’s argument which says: “Trademark loyalty can be regarded as both outcome and an aspect of trademark special value” (Hosseini and Ahmadi Nejad, 2010).

- **Marketing of Educational Services**

  While, many opponents of education marketing consider entrance of marketers into the arena of education as a cause for increased concerns and distrusts (Nopasand et al., 2013), Kotler and Fox (1995) regard educational institutes and commerce similar to one another in that education relies on financial resources that are provided by school fees or other resource. In fact, competition is witnessed among private institutes rather than state ones. When the field of education is regarded as commerce, each one of the institutes would make additional attempts to gain more customers.

  Kotler and Fox (1995) presented marketing mix of educational services as including the following elements:

  - Educational services: product, in connection with educational services, means students, and services are what are created by educational institute in immaterial and intangible forms. Educational services include knowledge, attitude, and behaviors which are transferred from one person to another; it is the process which assists individuals to obtain new capacities. Many educational services are a mixture of immaterial and material components and they should not be regarded as pure services (Diaconu and Pandelica, 2010). Organizations are improved via services and products offered
by the educational institute; they are able to increase their brand equity in the competitive markets (Nopasand et al., 2013).

- **Price**: price is the amount of money which is disbursed for products and/or services. In more in-depth definitions, price is the profit which is paid by consumers for advantages obtained as a result of possession/utilization of services or products (Kotler, 2007, p: 427). Price of educational services is the expense which is paid by students to take advantage of services. This amount is determined by service quality, location and creditability of the institute, private/public ownership, etc. In educational institutes, price is usually a fixed fee and anything else which is related to payment of money (Nopasand et al., 2013). In the topics related to consumers’ behaviors, this is indicated that, as viewed by many users, increased prices bring about an increase in quality perceived out of the service/product in consumers’ minds.

- **Place**: due to the inseparable nature of services from their providers, the factor distribution is significantly important in service marketing strategy. Given the intensity of competitions, provision of services at appropriate locations easily accessible for customers is a determining factor in attracting and maintaining users (Roosta et al., 1996, p: 426). Researchers suggest that accessibility level leaves positive impacts on perceived quality and brand loyalty. When distribution system is improved, customers would make less effort to find their wished brand (Nopasand et al., 2013). According to Kotler and Fox (1995), place and distribution system in educational services include geographical place, physical environment, accessibility probability, convenience, and atmosphere of the institute. However, place is not confined to geographical conditions, and educational services will also be provided by other options with development of technology.

- **Promotion**: Promotion includes a body of awareness, impacting, and provocation activities, the three elements which are closely interconnected (Roosta et al., 1996, p: 365). It contains all relations which are created by service provider in the market. Promotion can play the leading role in marketing of educational institutes, causing recognition of the institute name and brand. Promotion mix of educational institutes includes direct marketing, sales improvement, promotions, internet, and sponsorships (Rudd and Mills, 2008). Customers’ perception on large-scale, expensive investments in promotions causes more positive perception toward brand quality, brand awareness, and more powerful associations for brand (Martinez et al., 2009).

- **Processes**: Operation management (process) guarantees availability and suitable, stable quality of services. This element of service marketing mix is responsible for making balance in service supply and demand (Roosta et al., 1996, p: 427). Process is a method by which the institute carries on its activities together with the whole of administrative system. It contains procedures, mechanisms, and activities which require services. Educational institutes should make sure that their students have perceived the process of achieving services. In fact, process in educational institutes is the entirety which occurs at the institute such as management process, registration, teaching, official affairs, etc. (Nopasand et al., 2013).

- **Physical evidence**: physical facilities and evidence point to all of the physical and tangible (material) items an institution makes available to customers ranging from brochures to the infrastructure of the institute (Koes Soedijjati and Pratminingsih, 2011). Such facilities facilitate activities in transmission and provision of services. Regarding services, in addition to visible facilities, invisible capabilities that play a key role in offering basic services are to be taken into account, as well (Roosta et al., 1996, p: 426). Since in an institute, material elements are the first things which are viewed, Kotler asserts that physical facilities and evidence present quick and apparent indications to students (Nopasand et al., 2013).

- **People**: main elements of the service marketing are the people at service organization or those workers which provide services for customers. That is because many customers identify service providers as the organization itself (Roosta et al., 1996, p: 426). The first image out of the education institute taken by students is molded based on the relationships with institute staff. Importance of people has its roots in the fact that workers are the most important factor in accomplishing services. People are very effective in making positive relationship with customers. Rivals will find it difficult to harm the relationship which is made between their counterparts and their customers with whom they are in confidential and convenient terms. Also, people include both present and former students of the institute (Nopasand et al., 2013). According to Nopasand et al. (2013) and Abbasi et al. (2012), people and their behaviors leave positive impacts on companies’ brand equity.

**Conceptual Model of the Research**

Conceptual model of this research is adopted from Aaker special value model and illustrates the impact of service marketing mix elements on brand equity. Educational service marketing mix aspects are chosen based on the Kotler and Fox model. Given the research topic that is customer-driven, we prevented to investigate Aaker model brand assets. We, in addition, with combining brand association variable with brand awareness variable as in Yoo and Donthu (2001), considered it as in the following Fig. 1:
Danesh et al., 2015

Research Hypotheses

- H1: educational services have a significant relationship with brand equity.
- H2: price has a significant relationship with brand equity.
- H3: geographical place of the institute has a significant relationship with brand equity.
- H4: promotion and relation of the institute have a significant relationship with brand equity.
- H5: training process and services of the institute have a significant relationship with brand equity.
- H6: physical evidence of the institute has a significant relationship with brand equity.
- H7: human resources and people of the institute have a significant relationship with brand equity.

METHODOLOGY

This research is a practical research, whose methodology is descriptive-survey and a correlational-type. Field method is used to collect data (using questionnaires) and descriptive-survey method to analyses demographical features. Since research hypotheses investigate the relationship between main variables, correlation method is used to test them. This study is conducted in the area of the activities performed by Free Technical and Vocational Schools at eastern GUILAN within the time interval Dec. 2013 to Mar. 2014.

Statistical Population and Samples

Statistical population of this study includes all practitioners at Free Technical and Vocational Schools with powerful brands at eastern GUILAN, i.e., Roodsar, Langrood, and Lahijan cities. Since there was no accurate statistics on the number of such students, we considered the population to be unlimited. After distribution of thirty primary questionnaires, calculation of primary variance among samples using SPSS, and placement of the results in related formula for unlimited population (Azar and Momeni, 2009, p.73), volume of the sample was calculated to be 250 persons.

\[
n = \frac{Z_{\alpha/2}^2 \times S^2}{\epsilon^2} = \frac{1.96^2 \times 0.234}{0.06^2} \geq 250
\]  

(1)

Sampling was performed in random mode, and 300 questionnaires were distributed, from which a number of 260 utilizable questionnaires returned. Thus, the final number of this research’s samples was regarded to be 260.

Instruments to Collect Data

In this research, five-point Likert scale representing the “Strongly disagree” to “Strongly agree” continuum was used to collect data. The questionnaire has three sections: first section including demographical features (gender, age, and academic level); second section including author-constructed statements on service marketing mix elements adopted from conceptual definitions of Kotler and Fox (1995); and, third section containing statements respecting brand equity aspects adopted from Yoo et al. (2000).

Validity and Reliability of the Research

Given the fact that standard questionnaire has been used to evaluate aspects of brand equity, validity of these statements is affirmed. To examine validity of the statements related to service marketing mix elements, the opinions...
made by experts and professors at management and marketing field of study were received, and after exertion of required modifications, their validity was approved. Then, to assess reliability of the questionnaire, Cronbach’s alpha method was used for thirty primary questionnaires, which resulted in a Cronbach’s alpha amount of 0.901 (90 percent) showing high creditability levels.

**Method to Analyze Data**

SPSS was used to analyze research data. K-S test was also used to verify data normality and Durbin-Watson test to examine independence of errors. With regard to the fact that research hypotheses are to examine the relationship between dependent and independent variables, Spearman correlation test (r) was employed.

**Results and Data Analysis**

Investigation of demographical characteristics shows that almost 65 percent of sample items are females. Moreover, the age range 18-25 has the highest frequency among other age groups (nearly 42 percent). Approximately, 57 percent of sample subjects possess academic associate or Bachelor’s degrees, and only 6 percent of them have passed Master’s courses.

K-S test demonstrated that data are not normally distributed (table1). Therefore, regression cannot be utilized. Moreover, since coefficient of Durbin-Watson test was between 1.5 to 2.5, the hypothesis indicating errors’ independence is admitted and the hypothesis indicating self-correlation among variables is rejected (table 2).

**Table 1: results of Kolmogorov–Smirnov test**

<table>
<thead>
<tr>
<th>Educational services</th>
<th>Price</th>
<th>Promotion</th>
<th>Processes</th>
<th>People</th>
<th>Place</th>
<th>Physical evidence</th>
<th>Brand equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z statistic</td>
<td>5.049</td>
<td>4.749</td>
<td>1.828</td>
<td>2.699</td>
<td>3.023</td>
<td>2.821</td>
<td>2.5</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td>0.002</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Table 2: outputs of Durbin-Watson test**

<table>
<thead>
<tr>
<th>model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>832</td>
<td>0.692</td>
<td>0.684</td>
<td>1.861</td>
<td>1.861</td>
</tr>
</tbody>
</table>

a. Predictors: (constant), Physical evidence, educational services, promotion, price, place, process, people
b. Dependent Variable. brand equity

As data are not normally distributed, Spearman correlation test was used to test hypotheses. Table 3 shows a summary of testing these hypotheses. According to the following table, all hypotheses are admitted in the confidence level of 95 percent.

**Table 3: general results of analytical statistics**

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>Spearman coefficient</th>
<th>Coefficient of determination</th>
<th>sig.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Educational services</td>
<td>Brand equity</td>
<td>0.609</td>
<td>0.371</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2 Price</td>
<td>Brand equity</td>
<td>0.591</td>
<td>0.350</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3 Place</td>
<td>Brand equity</td>
<td>0.527</td>
<td>0.278</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4 Promotion</td>
<td>Brand equity</td>
<td>0.479</td>
<td>0.299</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5 Processes</td>
<td>Brand equity</td>
<td>0.570</td>
<td>0.325</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6 Physical evidence</td>
<td>Brand equity</td>
<td>0.711</td>
<td>0.505</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7 People</td>
<td>Brand equity</td>
<td>0.655</td>
<td>0.430</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Moreover, results of the investigation of the relationship between service marketing mix elements and three brand equity dimensions are exhibited in the table 4.

**Table 4: relationship between services marketing mix elements and three dimensions**

<table>
<thead>
<tr>
<th>Perceived quality</th>
<th>Brand awareness</th>
<th>Brand loyalty</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational services</td>
<td>0.498</td>
<td>0.620</td>
<td>0.520</td>
</tr>
<tr>
<td>Price</td>
<td>0.556</td>
<td>0.525</td>
<td>0.499</td>
</tr>
<tr>
<td>Place</td>
<td>0.492</td>
<td>0.551</td>
<td>0.426</td>
</tr>
<tr>
<td>Promotion</td>
<td>0.505</td>
<td>0.378</td>
<td>0.347</td>
</tr>
<tr>
<td>Processes</td>
<td>0.546</td>
<td>0.554</td>
<td>0.454</td>
</tr>
<tr>
<td>Physical evidence</td>
<td>0.678</td>
<td>0.611</td>
<td>0.577</td>
</tr>
<tr>
<td>People</td>
<td>0.610</td>
<td>0.594</td>
<td>0.532</td>
</tr>
</tbody>
</table>

**Descriptions**

1. Physical evidence has the highest relationship.
2. Educational services have the highest relationship.
3. Physical evidence has the highest relationship.
CONCLUSIONS AND DISCUSSIONS

This research was mainly focused on investigation of the relationship between service marketing mix elements and brand equity. Hypothesis tests indicated that there is a significant relationship between all marketing mix elements of educational services and schools’ brand equity.

The relationship between educational services and brand equity was verified to be in accordance with Nopas and et al. (2013) and Abbasi et al. (2012). Given the fact that educational services are the variable with the most influence on brand awareness and it has the third ranking in respect to brand equity, this is suggested to present educational courses proportionate also to interests and needs of the demographic groups with fewer frequencies in order to attract them to the schools. Moreover, presentation of sample exam questions and arrangement of internal examinations can also strengthen this relationship.

The relationship between price and brand equity was also verified to be in accordance with Doaei et al. (2011), Haghighi Kaffash et al. (2012), Rafiei et al. (2013), and Chattopadhyay et al. (2010). This is proposed to schools to offer discounts to their customers for such diversified pretexts as long record of applications, commensurability of services and expenses, etc.

The relationship between place (accessibility) and brand equity was also affirmed; it was in conformity with studies conducted by Doaei et al. (2011), Karbasivar et al. (2012), Chattopadhyay et al. (2010), and Kim and Hyun (2011). In order to fortify this relationship, schools are suggested to take advantage of website and internet services to eliminate the need to make personal appearance.

Promotion and brand equity were found to be weakly associated. However, this relation was found by Doaei et al. (2011), Nopasand et al. (2013), Haghighi Kaffash et al. (2012), Rafiei et al. (2013), Buil et al. (2013), Chattopadhyay et al. (2010), and Kim and Hyun (2011) to be powerful. Aimed at increasing this relationship, internet and television advertisements, promotional billboards, and more expensive advertisements are suggested to be made use of.

The relationship between the process for offering services and brand equity was affirmed. It was in accordance with Nopasand et al. (2013). To toughen this relation, registrations and class scheduling are proposed to become less time-consuming and come with more accuracy. Notifications should, also, be accurate and on-time. Finally, practitioners should be clustered according to their scientific and age levels.

According to the findings, physical evidence has the highest relationship with brand equity. This shows that practitioners consider factors such as facilities, internal and external views of the school, and outer appearance of the staff as an indication of their school’s brand superiority. To improve this relationship, school managers are suggested to pay more attention to their institute’s interior and exterior decorations. Establishment of a serene atmosphere, utilization of welfare equipment, application of modern and intact educational tools, etc., would certainly be other solutions in this regard.

The relationship between people and brand equity was also verified to be congruent with Nopasand et al. (2013), Abbasi et al. (2012), and Kimpakorn and Tocquer (2010). To increase this relationship, educational courses are proposed to be arranged to improve customer-oriented behaviors of the staff. Experienced trainers are also helpful. Giving discount to more powerful students is the next solution.

REFERENCES


