

## **Dimensions of Customer-Based Brand Equity: A Study on Bangladeshi Brands**

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**Abstract:** *This research tries to develop a valid and reliable model of Bangladeshi brand equity by assessing the dimensions of the brand equity and its constructs. Although Bangladesh market is deluged with value-for-money Bangladeshi brands since decades ago, not all the Bangladeshi brand achieved national recognition. Based on 30 constructs, which were compiled from literatures, four variables were included for brand awareness, seventeen variables for brand association, five for perceived quality and four for brand loyalty. Factor Analysis was conducted to identify dimensions of brand equity and its constructs. Principal Component Analysis with subsequent rotation (varimax) was conducted on 30 constructs of a questionnaire. According to the four dimensions proposed by Aaker (1991) in the brand equity literature, a four factor solution that reduced the 30 constructs to four factors was chosen in this study.*

**Keywords:** *Brand Awareness, Brand Associations, Perceived Quality, Brand Loyalty*

### **1 Introduction:**

In today's global market place, brands are central issue in marketing of today. Bangladeshi market is deluged with value-for-money Bangladeshi products in the past decades. However, not all Bangladeshi consumers recall a Bangladeshi brand when asked. Most of the Bangladeshi brands have not yet achieved national recognition. When given a choice of different brands, Bangladeshi consumers would often choose an international brand over Bangladeshi brand. However, there are a few Bangladeshi brands such as Walton, Pran, RFL, Radhuni, Meril, Fresh, Teer, Symphony, Milk Vita, Fakruddin, etc. that had accomplished some measure of success in global stage.

Building strong brands has been becoming a marketing priority for Bangladeshi brands. In today's competitive business environment, the concept of brand equity is an important source of strategic intelligence for marketers. High brand equity levels are known to affect consumer preferences and purchase intentions (Cobb-Walgren et al., 1995), profits and share returns (Srivastava and Shocker, 1991; Aaker and Jacobson, 1994), market power (Farquhar, 1989; Wood, 2000) and sustainable competitive advantages (Bharadwaj et al., 1993), brand extension (Keller and Aaker, 1992) and consumer's willingness to pay premium prices (Keller, 1993; Anselmsson et al., 2007). Brand equity serves three important roles: (a) it acts as a magnet to attract new customers to the firm, (b) serves as a reminder to the customers about the organization's products and services, (c) it is customer's emotional tie to the organization (Lemon et al., 2001).

A number of empirical researches have been conducted to evaluate brand equity. However, not much research has been done to apply brand equity concepts and measures to Bangladeshi brands. Thus, the objective of this

research is to develop a valid and reliable model of Bangladeshi brand equity by assessing the dimensions of the brand equity constructs.

## 2 Literature Review

The reality that emerges from the various researches in brand equity through the years is that there is considerable debate regarding the definition of brand equity and its measurements (Yoo and Donthu, 2001). However, brand equity is accepted as the overall utility that customers place in a brand (De Chernatony and McDonald, 2003; Vazquez et al., 2002). The definitions of brand equity can be classified into two perspectives. The first perspective of brand equity is from a financial market's point of view where the asset value of a brand is appraised (Farquhar et al., 1991, Simon and Sullivan, 1993).

Recently, brand equity has increasingly been defined in customer-based contexts, which defines brand equity as the value of a brand to the customer (Aaker, 1991; Keller, 1993; Cobb-Walgren et al., 1995; van Osselaer and Alba, 2000). Aaker (1991) defines brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers." Brand awareness, brand associations, perceived quality, brand loyalty and other proprietary assets were the five assets of brand equity. Keller (2003) argued that the power of a brand lies in the minds of the customers and what they have experienced and learned about the brand over time. He defines customer-based brand equity as "the differential effect that brand knowledge has on consumer response to the marketing of that brand". Brand knowledge consists of brand awareness and brand image.

Keller (2003) described customer-based brand equity as a multidimensional concept. Several empirical studies on the dimensions of customer-based brand equity (e.g.: Cobb- Walgren et al., 1995; Yoo and Donthu, 2001; Pappu et al., 2005; Washburn and Plank, 2002) are all derived from Aaker (1991) and Keller (1993) frameworks where brand equity can be measured by four constructs: brand awareness, brand association, perceived quality and brand loyalty. Yoo and Donthu (2001) developed multidimensional scale for measuring customerbased brand equity. This scale was later validated by Washburn and Plank (2002). However, the dimensionality of the customer-based brand equity needs to be refined (Washburn and Plank, 2002; Pappu et al., 2005) as to improve the measurement of consumer-based brand equity.

In this study, customer-based brand equity is conceptualized in accordance to Aaker (1991, 1996) and Keller (1993)'s models. A description of the dimensions and their constructs on which brand equity is based is examined and tested in the succeeding sections of this study.

### 2.1 Brand Awareness

Brand awareness is a key determinant of brand equity (Aaker, 1996; Keller, 2003; Mackay, 2001; Yoo and Donthu, 2001; Washburn and Plank, 2002; Pappu et al., 2005). It is defined as an individual's ability to recall and recognize a brand (Aaker, 1996; Keller, 2003). Top-of-mind and brand dominance is other levels of awareness included by Aaker (1996) in measuring awareness. Awareness can affect customers' perceptions, which lead to different brand choice and even loyalty (Aaker, 1996). A brand with strong brand recall (unaided awareness) and top of mind can affect customers' perceptions, which lead to different customer choice inside a product category (Aaker, 1996; Kimpakorn and Tocquer, 2010).

### 2.2 Brand Associations

Aaker (1996) conceptualizes brand awareness that must precede brand associations. That is where a consumer must first be aware of the brand in order to develop a set of associations (Washburn and Plank, 2002). Brand association contains the meaning of the brand for consumers (Keller, 1993). It is anything linked in memory to a brand (Aaker, 1991). Brand associations are mostly grouped into a product-related attribute like brand performance and nonproduct related attributes like brand personality and organizational associations (Aaker, 1996; Chen, 2001; Keller, 2003; Netemeyer et al., 2004; Pappu et al., 2005). Customers evaluate a product not merely by whether the product can perform the functions for which it is designed for but the reasons to buy this brand over the competitors (Aaker, 1996) such as brand's fault-free and long-lasting physical operation and flawlessness in the product's physical construction (Lassar et al., 1995).

Brand personalities include symbolic attributes (Aaker, 1996; Keller, 1993; Chen, 1996) which are the intangible features that meet consumers' needs for social approval, personal expression or self-esteem (Keller, 1993; Hankinson and Cowking, 1993; Pitta and Katsanis, 1995). The symbolic attributes that are commonly linked to a brand are:

1. *Social Image*: Lassar et al (1995) argue that social image which includes the attributions a consumer makes and a consumer thinks that others make to the typical user of the brand is more relevant in measuring customer-base brand equity.

2. *Perceived value*: Consumer choice of a brand depends on a perceived balance between the price of a product and all its utilities (Lassar et al., 1995). A consumer is willing to pay premium prices due to the higher brand equity (Aaker, 1993).

3. *Trustworthiness*: Trustworthiness refers to the level of confidence consumer places in the organization (Lassar et al., 1995). As a customer buys a good or service before experiencing it, fostering of trust is a key to build a customer relationship (Kinard and Capella, 2006).

4. *Country-of-origin*: Country of origin leads to associations in the minds of consumers (Aaker, 1991; Keller, 1993). Country image can influence perceived quality and brand loyalty. (Pappu et al, 2007). Country of origin refers to the country of origin of a firm or a product (Johansson et al., 1985; Ozsomer and Cavusgil, 1991).

Organizational associations include corporate ability and social responsibility associations (Aaker, 1996; Chen, 2001). Consumers will consider the organization, which is related to people, values, and programs that lies behind the brand. Brand's organization can be particularly helpful when brands are similar with respect to attributes or when a corporate brand is involved (Aaker, 1996). Corporate social responsibility (CSR) is influencing the development of brands (Blumenthal and Bergstrom, 2003) as the public is interested to know what, where, and how much brands are giving back to society (Shamim, 2022).

### 2.3 Perceived Quality

Perceived quality is defined as the customer's judgment about a product's overall excellence or superiority in comparison to alternative's brand (Zeithaml, 1988; Aaker, 1996) and overall superiority that ultimately motivates the customer to purchase the product (Aaker and Jacobson, 1994). It is difficult for customers to make a rational judgment of the quality. They are likely using quality attributes like color, flavor, form, appearance of the product and the availability of production information (Bernués et al., 2003) to 'infer' quality (Acebrón and Dópico, 2000).

**2.4 Brand Loyalty**

Aaker (1991) defines brand loyalty as ‘the attachment that a customer has to a brand’. Two different levels of loyalty are classified: behavioral and cognitive loyalty (Keller, 1998). Behavioral loyalty can be indicated by a number of repeated purchases (Keller, 1998) or commitment to rebuy the brand as a primary choice (Oliver, 1997, 1999). Cognitive loyalty refers to the consumers’ intention to buy the brand as the first choice (Keller, 1998; Yoo and Donthu, 2001). Another indicator of loyalty is the customer’s willingness to pay higher price for a brand in comparison with another brand offering similar benefits (Aaker, 1996; Chaudhuri and Holbrook, 2001; Srinivasan et al., 2002).

**3 Methodology**

**3.1 Research Design**

This questionnaire is divided into two parts. The first is concerned with the demographic. The second part is thirty variables associated with the brand awareness, brand associations, perceived quality and brand loyalty. The data collection instrument is a structured questionnaire. A pool of 30 items compiled from the literature was incorporated in the questionnaire (Table 1). Four variables were included for brand awareness, seventeen variables for brand association, five for perceived quality and four for brand loyalty. A Likert-scale of 1 to 5 was adopted for all the brand equity measures with the anchors ‘strongly disagree’ (1) and ‘strongly agree’ (5). The items were developed with reference to the empirical studies of Yoo and Donthu (2001) and Lassar et al (1995). The reason for referring to their scale development studies is that their scales are the most commonly accepted measure of customer-based brand equity (Washburn and Plank, 2002).

**Table 1: Dimensions of Brand Equity and its Constructs**

1.	<b>Brand Awareness (Aw)</b>	I have difficulty in imagining this brand in my mind.
2.		I can recognize this brand among competing brands.
3.		This brand is the only brand recalled when I need to make a purchase decision on the product.
4.		This brand comes up first in my mind when I need to make a purchase decision on the product.
5.	<b>Brand Associations</b>	The brand is made so as to work trouble free.
6.		This brand is safe to use/consume.
7.		During use, the brand is highly unlikely to be defective.
8.		I can quickly recall the logo of this brand.
9.		In its status and style, this brand matches my personality.
10.		The brand is well regarded by my friends.
11.		I am proud to own a product of this brand.
12.		I consider the company and people who stand behind the brand are very trustworthy.
13.		The brand is well priced.

14.	<b>(BA)</b>	Considering what I pay for the brand, I get much more than my money's worth.
15.		I can get the same benefits from this brand when compared to the imported brand(s).
16.		The brand's country of origin/manufacture is important in choosing this product.
17.		I consider the company and people who stand behind the brand have the expertise in producing the product.
18.		I believe that this company and people who stand behind the brand are socially responsible.
19.		I believe that this company does not take advantage of consumers.
20.		I believe that this company is contributing to the society.
21.	<b>Perceived Quality (PQ)</b>	This brand is of good quality.
22.		I can expect superior performance from this brand.
23.		This brand is very reliable.
24.		I don't have difficulties in finding the information that I need from the label of the package.
25.		This brand is better as compared to other brand(s) of the product in terms of the color/flavor/form/ appearance.
26.	<b>Brand Loyalty (BL)</b>	After using the brand, I grow fond of it.
27.		I will definitely buy this brand of product again.
28.		I buy/use this brand of product because it is a Bangladeshi brand.
29.		I will not buy other brands, when this brand is available at the store.
30.		I will definitely buy this brand of product although its price is higher than the other brand(s) of the product that offer similar benefits.

### 3.2 Data Collection

500 questionnaires were sent to all parts of Dhaka city. Respondents were randomly selected. However, only 489 valid samples were used for the analysis. Overall, two months was used to collect all the questionnaires. Malhotra (1999) suggested minimum sample of problem solving is at least 200 samples. Thus, we have used the recommendations of Malhotra (1999), which are at least 200 samples.

### 3.3 Data Analysis

For purposes of data analysis, SPSS was used to analyze the Cronbach's alpha, factor analysis and correlation.

## 4 Findings and Analysis

### 4.1 Demographics

The sample indicates a balance between males (51.7%) and females (48.3%). Majority of the respondents are those age in between 26 years – 45 years (61%) and monthly income in the range of Tk. 20,000 – Tk. 40,000 (67%). The breakdown of the demographic analysis are represented in the sample (Table 2).

**Table 2: Demographics**

	Frequency	Percent
<b>Gender</b>		
Male	253	51.7
Female	236	48.3
Total	489	100
<b>Age</b>		
18 – 25	140	28.6
26 – 35	154	31.5
36 – 45	146	29.9
46 – 55	40	8.2
Above 55	9	1.8
Total	489	100
<b>Income (Monthly)</b>		
Less than 10,000 Tk.	62	12.7
10,001 Tk. – 20,000 Tk.	80	16.4
20,001 Tk. – 30,000 Tk.	130	26.6
30,001 Tk. – 40,000 Tk.	199	40.7
40,001 Tk. – 50,000 TK.	7	1.4
Above 50,000 Tk.	11	2.2
Total	489	100
<b>Education</b>		
SSC	90	18.4
HSC	104	21.3
Bachelor Degree	263	53.8
Master Degree	32	6.5
Total	489	100

### 4.2 Reliability and Validity of the Constructs

Internal reliability of the 30 construct scale was assessed using Cronbach’s Alpha technique. The scale produced an alpha of 0.96, which is highly acceptable for an attitude scale (Burns and Burns, 2008). The validity of the constructs is justified as the measures were developed based on a theoretical framework that was derived from extensive literature review.

**4.3 Factor Analysis**

The 30 constructs were tested by principal components analysis, using varimax rotation. According to the four dimensions proposed by Aaker (1991) in the brand equity literature, we have chosen a four factor solution that reduced the 30 constructs to four factors ( $\alpha=0.96$ ), with eigenvalues greater than 1.0 except the brand awareness factor which has an eigenvalue less than one. These four factors explained 59% per cent of the total variance.

By convention, the factor loadings should be at least 0.3 but for a variable to unambiguously represent a factor, the loading should be 0.6 and above (Burns and Burns, 2008). In this study, the brand equity constructs with a loading below 0.6 were excluded from further analysis. 14 constructs remained in this study. Table 3 lists the factors in the order in which they were extracted from the data.

**Table 3: Result for Factor Analysis, Factors Variance, Loadings and Brand Equity Constructs**

<b>Factor</b>	<b>Factor Interpretation (% of variance explained)</b>	<b>Brand equity constructs</b>	<b>Loading</b>
F1	Perceived Quality (47%)	This brand is very reliable (PQ1)	0.679
		This brand is safe to use/consume.(PQ2)	0.679
		This brand is of good quality. (PQ3)	0.648
F2	Brand Associations (5%)	I consider the company and people who stand behind the brand have the expertise in producing the product. (As1)	0.701
		I believe that this company and people who stand behind the brand are socially responsible. (As2)	0.694
		I believe that this company does not take advantage of consumers. (As3)	0.663
		The brand is well priced. (As4)	0.645
		I believe that this company is contributing to the society. (As5)	0.643
F3	Brand Loyalty (3%)	I will not buy other brands, when this brand is available at the store. (L1)	0.702
		I will definitely buy this brand of product although its price is higher than the other brand(s) of the product that offer similar benefits. (L2)	0.699
		I buy/use this brand of product because it is a Bangladeshi brand. (L3)	0.693
F4		I have difficulty in imagining this brand in my mind. (Aw1)	0.733

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Brand Awareness (3%)	I can recognize this brand among competing brands.(Aw2)	0.711
	This brand comes up first in my mind when I need to make a purchase decision on the product. (Aw3)	0.517

With reference to the rotation, Factor 1 is loaded on 3 constructs that reflects perceived quality of Bangladeshi brand and accounted for 47% of the variance. Factor 2 is loaded with 5 constructs and accounts for 5% of the variance. Factor 2 is labeled as brand associations. The third factor accounted for 3% of the variance and is loaded on 3 constructs suggesting it is measuring brand loyalty. The last factor, measuring brand awareness, is accounted for 3% of the variance and loaded with 3 constructs.

## 5 Conclusion

This study focuses on four dimensions of brand equity, which are perceived quality, brand associations, brand loyalty and brand awareness and its measurements. Conceptualizing brand equity from the consumer's perspective is useful because it suggests both specific guidelines for marketing strategies and tactics and areas where research can be useful in assisting managerial decision making. Two important points emerge from this conceptualization.

First, marketers should take a broad view of marketing activity for a brand and recognize the various effects it has on brand knowledge, as well as how changes in brand knowledge affect more traditional outcome measures such as sales. Second, markets must realize that the long-term success of all future marketing programs for a brand is greatly affected by the knowledge about the brand in memory that has been established by the firm's short-term marketing efforts. In short, because the content and structure of memory for the brand will influence the effectiveness of future brand strategies, it is critical that managers understand how their marketing programs affect consumer learning and thus subsequent recall for brand-related information (Keller, 1993).

Derived from the analysis, this model includes four factors and 14 variables. For further study in the future, we will investigate the fitness model by using the structure equation model (SEM). Continuation of this study, the problems will be studied in the future is whether the brand awareness, brand associations, perceived quality and brand loyalty has a positive impact on brand equity.

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