

Impact of brand equity on the buying behaviour of Millennials towards smartphones in Bangladesh

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ABSTRACT: *Recent years have seen a drastic increase in the use of smartphones in Bangladesh, mainly due to the accessibility of Internet. Millennials are a huge contributor to the market and thus, it is important to examine the extent to which they are influenced by brand equity in the remarkably growing market of smartphones in Bangladesh. This study therefore, investigates whether brand equity dimensions as per Aaker's model of 1991 have any relation with the buying behaviour of consumers who belong to the millennial generation. Data of 154 respondents in total were analyzed by conducting a factor analysis, followed by a correlation analysis using SPSS. Eventually, the results state that there is positive correlation between all the factors, including the four brand equity elements and consumer buying behaviour. However, it is also notable that in the smartphone market, there is a weaker relationship between one of the brand equity elements (i.e. brand awareness) and the buying behaviour of millennials.*

KEY WORDS: *brand equity, smartphones, millennials, and consumer buying behaviour*

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I. INTRODUCTION

Once a mere device for communication, has now transformed into a gadget that serves several purposes of a user. Especially, with the availability of Internet connection, smartphone users are exposed to a much wider range of contents and services today^[1]. It is anticipated that by the year 2018, over 36% of the world population may use smartphones, representing a rise of about 26% from 2011^[2]. The escalating smartphone consumption worldwide also reflects the extraordinary growth of smartphone penetration in Bangladesh.

According to the Bangladesh Telecommunication Regulatory Commission (BTRC), the total number of mobile phone subscribers using Internet has increased to over 80 million now, which is about half the population^[3], amongst which more than 30% are smartphone users^[4]. Although, there is no specific data to confirm the total number of smartphone users in Bangladesh, but the smartphone market has shown a growth of 20% in 2016^[5]. Parallel to an upsurge in smartphone consumption, competition in the market has become fierce and thus, the need for marketers to differentiate their smartphone brands has become increasingly significant. Companies are in the race for attracting their customers' attention^[6], and one of the vital means to achieve this goal is distinction through branding^[7].

Brand names and attributes are often used as indicators to help consumers in their decision-making process. A good quality brand triggers a positive perception amongst the consumers resulting in purchase intentions^[8]. It is often seen that consumers notice brand name, status and image over other features of the brand^[9]. According to Lee and Back^[10], positive branding eventually results in competitive advantage, enabling the company to achieve success in terms of profitability and loyalty amongst consumers. Brand equity therefore is an integral part of building a strong brand. As referred by Chen and Chang^[11] brand equity is the value that a brand adds to a product^[12]. Brand equity has several dimensions, which influence consumer preferences, purchase intentions and overall behaviour towards products and services. Existing literature classifies brand equity into three categories: mental brand equity, behavioural brand equity and financial brand equity^[13]. This research specifically concentrates on the first two, which highlights the impact of brand on consumer's attitude and the actual response to the brand, which is also known as Customer-Based Brand Equity (CBBE). In other words, brand equity is the extent to which brand's knowledge influence consumer response to a brand's marketing efforts^[14]. The primary focus of this research is to study the effect of CBBE on the buying behaviour of millennials in the smartphone market of Bangladesh.

According to PEW Research Center^[15] millennials are those born between 1981 and 1996 (i.e. currently aged between 22-37). Millennials are considered a huge commercial force because of their contribution in setting current market trends and their spending power^[16]. This generation is self-reliant and highly dependent on technology and thus, it is quite apparent that the millennials, who are around 34.8% of the population in

Bangladesh^[17], make a vital consumer segment for the brands in the smartphone market^[18]. Therefore, analysing their buying behaviour towards smartphone brands in Bangladesh is deemed important, not only for the growth of this particular sector, but also to explore the influence brand equity dimensions may have on this segment.

II. LITERATURE REVIEW

2.1. Brand equity

The study of brand and brand management existed for many decades, but the contribution of brand equity theories to organizational success, and the interest of researchers in this field started to develop in the 1980s^[19]. Keller (1993) defines brand equity as the “differential effect of brand knowledge on consumer response to the marketing of the brand”^[14, p.1]. On the other hand, 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 customer”^[20, p.15]. Clow and Baack (2005) states, brand equity are the brand features that characterize the brand as unique in the marketplace^[21].

Various authors have defined the term differently, but the most popularized ones have been established from customer perspective. Aaker (1991) and Keller’s^[11] model of brand equity are widely acknowledged in this area of study, and it is intriguing to note that their conceptualizations of brand equity are closely intersecting as well^[13]. Chen and Chang^[11] divides Aaker’s four basic dimensions of brand equity into two categories: (i) consumer perception (i.e. brand awareness, brand association, perceived quality); and (ii) consumer behaviour (i.e. brand loyalty). A similar theory comes from Keller (1993) who considers brand knowledge as the primary factor to create brand equity, and suggests two constructs for its measurement: brand awareness and brand image^[22]. Except for Keller’s exclusion of Aaker’s ‘brand loyalty’ dimension from his framework, the rest are quite similar^[13].

The manner in which brand equity benefits an organization has been subject to numerous researches in the past. However, most scholars confirm that brand equity influence consumer’s purchase intention, brand preference, willingness to pay premium price, and a stronger loyalty towards the brand^{[12][23]}. Therefore, existing literature reveals that brand equity is positively related to consumer buying behaviour, which is defined as the “decision-making process and physical activity involved in acquiring, evaluating, using and disposing of goods and services”^[24, p.2].

Aaker’s four basic brand equity dimensions: brand awareness, brand association, perceived quality and brand loyalty have been used to prepare the main framework of this research, and are discussed in the following parts of the article.

2.2. Brand equity dimensions and consumer buying behaviour

(a) Brand Awareness

Keller (1993) relates brand awareness to the possibility and ease with which a brand name comes to mind^[14]. Similarly, Aaker refers it to the ability of a potential buyer to easily recall and recognize a brand for a certain product category^[20]. Hence, brand awareness basically functions as a brand retrieval signal^[13]. According to Keller, brand awareness is comprised of two elements: brand recognition and brand recall^[14]. While recognition means the likelihood that the consumers will confirm their previous exposure to a particular brand, brand recall on the other hand represents the ability of consumers to name a specific brand for a given product category^[25].

Brand awareness plays a crucial role in consumer’s decision-making process^[26], because the greater the awareness, the higher will be the possibility for the consumer to think of the brand name of a product category, and consumers have a tendency to buy familiar and well-established brands^[14]. Moreover, brand awareness also functions as a guide for consumers when making a purchase choice, saving their time and effort because otherwise, when dealing with an unknown brand, one is more likely to compare other attributes of products like functionality and price^[27]. This dimension of brand equity has a strong influence on consumer buying behaviour^[28]; hence, it is regarded as a significant contributor to purchase intention and repeat purchase behaviour of consumers^{[29][30]}.

(b) Brand Association

Brand assets and liabilities of any brand can create certain memories in the mind of the customers, which is generally termed as brand association^[31]. As Aaker states, brand association represents anything linked to the memory of a brand^[20]. When these associations are accumulated with some signification, it forms brand image^[13]. In other words, brand image indicates how consumers perceive the brand from the associations gathered in their memory^[32]. Brand association can be an outcome of functional or symbolic characteristics of a brand^[33]. Usually consumers are found to link a brand with features such as technological advancements, innovativeness, distinctiveness, status, and overall excellence in product or service performance^{[13][33]}. For the measurement of this dimension, Aaker proposes three perspectives: brand value, brand personality and organizational associations^[34].

The importance of this dimension lies in its ability to influence consumer's positive feelings towards a brand; the more positive consumer's experience is, the stronger the brand reputation will be in the market^[33]. This drives the marketers to use brand association as a means to differentiate, position and extend brands, and to create positive attitudes and feelings among consumers^[35]. Hence, brand association forms the basis for purchase decisions. Aaker highlights that some of the benefits of this element are helping the consumer in retrieving brand information, providing a reason to buy, differentiating the brand, and creating positive perception of the brand^{[20] [22] [35] [36]}. Researchers have found that brand associations can determine consumer's brand preference, intention of purchase, willingness to pay a premium price, and the likability of recommending the brand to others^[37].

(c) Perceived Quality

According to Zeithaml (1988), the term 'perceived quality' denotes "consumer's judgment about a brand's overall excellence or superiority"^[38, p.3]. Superiority signifies the basic functionality as well as outer dimensions of the product, relative to alternatives^[39]. Brand quality perceived by consumers can be measured by assessing the conformance of consumer's opinion about the product quality and attributes to the expected performance^[40]. As a result of such conformance, perceived quality can add value to a brand by providing the customers with a drive to purchase, positioning differently from the competitors, and charging a relatively higher price^[20]. Swinker and Hines (2006) classified perceived quality into four categories: intrinsic, extrinsic, appearance and performance^[41]. Many researchers argue that perceived quality directly impacts consumer's likelihood to purchase and is considered as the main originator of brand loyalty^{[42] [43] [44] [45]}.

(d) Brand Loyalty

The study of brand loyalty dates back to the year 1923, which was introduced by Copeland, and over the course of time it became the core of marketing science^[46]. Aaker defines brand loyalty as the propensity of consumers to switch to another brand^[20], whereas Keller relates the term to "brand resonance", which signifies the bonding between the consumer and the brand^[14]. From the rest of the dimensions, brand loyalty is the one that develops with the actual purchase and use of the product or brand^[33]. To evaluate brand loyalty, scholars have used different measures, but the most common criteria are: repurchase behaviour, acceptance towards premium price, customer's retention ratio, switching behaviour, and the willingness to recommend the brand to others^{[31] [47]}. Aaker states that brand loyalty is a major source to determine consumer's buying behaviour over a long period of time^[20].

The literature above, points out the relationship between brand equity dimensions, consumer's preference of brands and purchase intentions. With the help of Aaker's brand equity model, the framework for this research have been constructed, in order to analyze the effect of brand equity on the buying behaviour of millennials towards smartphones in Bangladesh.

III. RESEARCH METHODOLOGY

To analyse the impact brand equity elements may have on millennials' buying behaviour, a five-point likert scale questionnaire was developed from the previous studies conducted by Yoo and Donthu^[48] and Muigai^[49]. The likert scale ranged from "5" signifying "Strongly Agree" to "1" meaning "Strongly Disagree". With the help of random sampling primary data were collected by Google Forms, which were circulated on various social media groups where millennials are presumably active and reachable. In addition to this, hard copies were used to collect data from the sample group with the help of volunteering students. Out of the 198 self-administered questionnaires, 154 were finalized as the rest were discarded mainly due to the incompleteness of data.

Since the research focuses on the buying behaviour of millennials, respondents of the corresponding age group (i.e. 22-37) with possession of a smartphone were only requested to fill out the questionnaires. The questionnaire was constructed to have two sections. The first section is aimed to gather general information about the respondents as well as the smartphone brand(s) they use or prefer. On the other hand, the following section, which is specifically integral to the main purpose of the research, was designed using pre-determined variables related to brand equity dimensions (i.e. brand awareness, perceived quality, brand loyalty and brand association) and consumer buying behaviour. The collected data was further analysed using Statistical Package Software for Social Sciences (SPSS.24) to carry out exploratory factor analysis (EFA), followed by reliability test, KMO-Bartlett test and correlation analysis of the factors identified.

IV. DATA ANALYSIS

4.1. General information of the respondents

The table below depicts the profile of the respondents and the smartphone brand(s) currently owned by them.

Table 1: Profile of respondents and current brand(s) smartphone(s)

Variable	Category	Frequency	Percentage
Gender	Male	101	65.6
	Female	53	34.4
Age	22-25	85	55.2
	26-29	34	22.1
	30-33	20	13.0
	34-37	15	9.7
Household Income (in BDT)	Below 20,000	0	0
	20,000-40,000	21	13.6
	41,000-50,000	27	17.5
	51,000-1,00,000	50	32.5
	Above 1,00,000	56	36.4
Education	Undergraduate	69	44.8
	Graduate	44	28.6
	Post-Graduate	41	26.6
Occupation	Business	18	11.7
	Service	50	32.5
	Student	83	53.9
	Home-maker	2	1.3
	Others	1	0.6
Brand(s) of Smartphone(s) in use	Apple	35	22.7
	Samsung	43	27.9
	OnePlus	3	1.9
	Xiaomi	30	19.5
	Huawei	23	14.9
	Walton	6	3.9
	Other	14	9.1

4.2. Results of Factors Analysis

Table 2: Factor loading of measured items

#	Items	Components				
		Brand Loyalty	Perceived Quality	Brand Association	Brand Awareness	Consumer Buying Behaviour
1	I would always prefer this brand to others, even if smartphones with similar features were available in the market	.718	-	-	-	-
2	I would recommend this smartphone brand to others	.711	-	-	-	-
3	If I plan to purchase a new smartphone, I will consider this brand	.704	-	-	-	-
4	This brand is reliable and thus, I have full confidence in it	.697	-	-	-	-
5	I am less likely to switch to another brand in the future	.686	-	-	-	-
6	This brand is typically my first choice for smartphones	.638	-	-	-	-
7	The brand offers good value for money	-	.753	-	-	-
8	Because this brand offers superior quality, I am willing to pay a premium price	-	.716	-	-	-
9	This brand has a greater durability in comparison to other brands	-	.683	-	-	-

10	This brand possesses the image of having the best quality in the market	-	.636	-	-	-
11	This smartphone brand has excellent functional features	-	.618	-	-	-
12	This brand is visually appealing and favourable	-	.513	-	-	-
13	The brand reflects a distinct personality (e.g. glamorous, professional, etc.)	-	-	.764	-	-
14	This brand adds to a certain status symbol in the society	-	-	.762	-	-
15	This brand is in fashion currently	-	-	.742	-	-
16	The brand has a superior reputation in the market	-	-	.646	-	-
17	I am proud of being associated with this brand	-	-	.617	-	-
18	I can quickly recall the logo and symbol of this brand	-	-	-	.812	-
19	I can easily imagine this brand in my mind	-	-	-	.805	-
20	I am well aware of this smartphone brand	-	-	-	.681	-
21	This brand is easily recognizable among other competing brands	-	-	-	.648	-
22	I am willing to buy other product categories from the same brand	-	-	-	-	.733
23	I am willing to try other models of the same brand	-	-	-	-	.699
24	I intend to buy smartphones from this brand more often	-	-	-	-	.686
25	I am willing to pay an extra price for this brand	-	-	-	-	.534

*2 items were excluded due to lower factor loading coefficient than the stated range

As mentioned earlier, the variables were adapted from other studies ^{[48] [49]}; however, modifications were made, for which, exploratory factor analysis was conducted to refine the compatibility of variables, and identify the ones that really load well together in context of this particular research. Varimax Rotation helped to identify five factors including the aforementioned brand equity dimensions, and consumer buying behaviour. In total, the five factors comprised of 27 items or variables. Intriguingly, the grouping of the pre-determined variables was found to be misaligned with the ones generated from the factor analysis done in this study. Hence, the EFA was very helpful to give new insight on the factors that actually load together.

According to Churchill (1979) as cited by Saleh et al. ^[50], the individual items in the factor analysis must have a loading coefficient of 0.50 and above to be accepted. Table 2 denotes that the items meet the factor loading benchmark of 0.50, except for 2 items, which were excluded from the table due to their failure to match the ideal value. The Varimax Rotation method in the Factor Analysis grouped the most compatible variables together and for a better understanding the rest of the values was removed from the table. Therefore, the table points out that ‘brand loyalty’ and ‘perceived quality’ factors have 6 items each, whereas, ‘brand association’ factor is loaded with 5 items, and ‘brand awareness’ and ‘consumer buying behaviour’ consist of 4 items each.

4.3. Reliability Test

Table 3: Reliability of variables

Variables	No. of Items	Cronbach’s Alpha
Brand Loyalty	6	0.918
Perceived Quality	6	0.880
Brand Association	5	0.923
Brand Awareness	4	0.762
Consumer Buying Behaviour	4	0.854

After the factor analysis, the grouped items were tested for validity using Cronbach’s Alpha. This test signifies the internal consistency of data or in other words it measures the extent to which a group of items are closely related. According to Charlotte et al. ^[51], an alpha value of 0.05 and above is accepted; however, it is also suggested that a greater value indicates a greater reliability of data. Therefore, Table 3 represents the values of all the components are within the acceptable range from 0.762 to 0.918, which in fact above the determined benchmark. The items included in the questionnaire can thus be considered highly reliable.

4.4. Results of KMO-Bartlett test

Table 4: KMO & Bartlett Test

Variables	KMO	Chi-Square	df	Sig
Brand Loyalty	0.915	635.005	15	.00
Perceived Quality	0.869	481.263	15	.00
Brand Association	0.891	573.815	10	.00
Brand Awareness	0.738	153.713	6	.00
Consumer Buying Behaviour	0.802	269.184	6	.00

KMO and Bartlett test is used to measure how appropriate the data is for the factor analysis. Simply stated, it is the measure of sample adequacy and works as an indicator for the acceptability of factor analysis. As a general rule the KMO falls within the range of 0 to 1, but to be statistically significant the value is expected to be over 0.50^[51]. This implies that the greater the KMO value is and closer to 1, it reflects that the factor analysis of the variable is appropriate. It is evident in Table 4, the results of KMO-Bartlett test shows that all the items conceptualized into five factors are statistically significant as each variable is greater than 0.50, ranging between 0.7-0.9 and the overall KMO score for the study is 0.946.

4.5. Correlation Analysis of the Five Factors

Table 5: Correlation coefficients

Correlations						
		Brand Loyalty	Perceived Quality	Brand Association	Brand Awareness	Consumer Buying Behaviour
Brand Loyalty	Pearson Correlation	1	.884**	.793**	.534**	.842**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	154	154	154	154	154
Perceived Quality	Pearson Correlation	.884**	1	.800**	.563**	.812**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	154	154	154	154	154
Brand Association	Pearson Correlation	.793**	.800**	1	.515**	.720**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	154	154	154	154	154
Brand Awareness	Pearson Correlation	.534**	.563**	.515**	1	.482**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	154	154	154	154	154
Consumer Buying Behaviour	Pearson Correlation	.842**	.812**	.720**	.482**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	154	154	154	154	154
** Correlation is significant at 0.01 level (2-tailed).						

In order to examine the impact of brand equity dimensions on consumer buying behaviour of millennials in the smartphone industry, it was deemed important to perform a correlation analysis. Table 5 above clearly illustrates that all the brand equity dimensions have a significant positive correlation with consumer buying behaviour. Brand loyalty has the highest impact on buying behaviour (r=0.842, p<0.01), followed by perceived quality (r=0.812, p<0.01) and brand association (r=0.720, p<0.01). However, while all the dimensions have a strong relationship with buying behaviour, brand awareness comparatively has a weaker relationship (r=0.482, p<0.01).

V. CONCLUSION

Based on the analysis and findings of this study, it is apparent that there is a positive correlation between the elements of brand equity and the buying behaviour of millennials in the smartphone industry of Bangladesh. Brand equity dimensions consisting of brand awareness, perceived quality, brand loyalty and brand association, all have positive relationship with consumer buying behaviour only with the contradiction that brand awareness, which even though has a positive relationship, also has a lesser strength in comparison to other factors. This infers millennials when buying smartphones are moderately influenced by their awareness towards brands. Simply put, millennials are not as affected by brand recall or brand recognition as they are by the quality the brand promises, the loyalty formed towards the brand, or the meaning or value it holds for the customers.

However, the study is not free of limitations, which could be taken into consideration to fully explore further scopes of research. More diverse range of respondents could be reached in order to enrich the data. In addition, more variables could help to analyze buying behaviour of millennials to obtain a wider view on the subject matter. A comparative analysis on the brand equity of the most popular smartphones in Bangladesh could perhaps give new information on the extent to which brand equity influences millennial's choice of brands. This could in fact enable the smartphone industry to comprehend the significance of brand equity in determining customer's selection of brands, their willingness to repurchase or to switch.

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