

Brand Credibility and Brand Involvement as an antecedent of Brand Equity: An Empirical Study

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Abstract Very few studies have been done on Studying Brand credibility and Involvement as a determinant of Brand Equity. Literature on Brand Equity signifies lots of constructs like, Country of Origin, Brand Signaling, and Brand Power act as determinant to Brand Equity. This study tries to formulate relationship between the construct Brand Credibility and Brand Involvement as Antecedents to Brand Equity of Product. Using a Two Step Structural Equation Modelling approach analysis on the data collected on Mobile Phone brands were done. Result signified that Brand Credibility and Brand Involvement had significant influence on Brand Equity of the Product. On the Other hand there was no significant relationship between Brand Credibility and Brand Involvement of the Product.

Keywords Brand Credibility • Brand Involvement • Brand Equity

Introduction

Brands and Brand Equity

Kotler defines brands as any name, term, sign, symbol, logo, design or combination of them (Kotler 1997). The impact on choices and consideration for purchase comes from its Credibility (Erdem and Swait 2004).

Brand equity is said to be the premium which a person pays for a product while comparing it with its non branded counterpart (Bello and Holbrook 1995). The theory of brand equity has been discussed in the accounting and marketing literatures, and has been highlighted as having a long-term

focus within brand management (Wood 2000). There are basically two schools of thoughts on brand equity and each one has used separate dimensions and constructs to define and measure them. Aaker has given the model Brand Equity - Ten to measure customer based brand equity. The dimensions of the model are Loyalty measure (Price premium, satisfaction/loyalty) Perceived quality, Leadership measures (Perceived quality, Leadership), Association / Differentiation measures (Perceived value, Brand personality, Organizational Association), Awareness measures (Brand Awareness), Market Behaviour Measures (Market share, Price and Distribution indices) (Aaker 1996).

The next school of thought on measuring customer based brand equity is given by Keller. He has defined Brand equity as the differential effect of Brand knowledge on consumer response to the marketing of the brand (Keller 1993). Brand Knowledge is again divided into two dimensions. They are Brand awareness and Brand Image. Brand awareness is defined as strength of brand node or trace in the memory as reflected by consumer's ability to identify under different conditions (Roster and Percy 1987). Brand Image is defined as perceptions about a brand reflected by associations in the consumers mind (Keller 1993). These definitions were more products centric and less emphasis was given to services as such.

Literature Review

Brand Credibility

Brand credibility term comes from the literature available on source credibility which is defined as Trustworthiness, Expertise and Attractiveness of the Endorser, Company or Brand and Advertiser on which the consumer believes (Ohanian 1991). Roobina Ohanian defines Source credi-

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bility as communicator's constructive characteristics that affect the receiver's acceptance of a message (Ohanian 1990). Credibility signifies the scope of the source, perceived of having relevant expertise and knowledge of the subject which can be trusted and who gives an honest and believable opinion on the subject or the product, Brand and Services (Ohanian 1990). The Source can be the Celebrity Endorser's Credibility, Company's (Brand) credibility, and advertisings credibility. Perceived expertise and trustworthiness of the endorser is an important bases of credibility, and effectiveness of celebrity and other endorsements derives from the credibility of a product's endorser (Hovland, Janis, and Kelly 1953; Ohanian 1991). Endorsers are also used as sign in low involvement situations, whereby a consumer's reaction to the endorser is directly passed on the brand (Petty, Cacioppo, and Schumann 1983).

Brand credibility can be defined as the believability of a brand (Erdem and Swait 2004). The believability of brand is affected by the consistency in the marketing mix of the Brand (Erdem et al. 2004). Brand cues are used by sellers to pitch their brand to the consumers. There are various dimensions of Brand Credibility given in the literature. Pete Blackshaw in his paper the six dimensions of brand credibility assigned Trust, Authenticity, Transparency, Listening, Responsiveness, and Affirmation (Blackshaw 2008). When we go through these constructs we find that Trust is the most important construct in Brand Credibility. Trust is defined as the willingness of a person or group of persons to believe actions and words of another person, party or association (Zucker 1986). Trust is the risk required for an individual to believe in other individual for some favor or understanding of issues. Trust influences choice and behavior (Lewis and Weigert 1985). In trusting situations the sources of risk generally are related to vulnerability or uncertainty about an outcome.

Trust is developed from different sets of dimensions like Nations cultures, norms, values and behavior and cognitive process like predictions, assumptions and transference (Doney et al. 1998). When we talk about Trust in Brand context, it can be defined as the perceived faith and expectation shown towards a brand by a customer. Brand trust has been defined as "Feeling of security held by the consumer in his/her interaction with the brand, that it is based on the perceptions that the brand is reliable and responsible for the interests and welfare of the consumer" (Delgado-Ballester et al. 2003). Trust can be defined as the willingness of a person on group of persons to believe actions and words of another person, party or association (Zucker 1986). Trust can also be defined as the expectation that an exchange partner will not engage in opportunistic behavior, despite short term incentives and uncertainty about long-term rewards (Bradach and Eccles 1989). Trust

is the risk required for an individual to believe in other individual for some favor or understanding of issues. Trust influences choice and behavior (Lewis and Weigert 1985). In trusting situations the sources of risk generally are related to vulnerability or uncertainty about an outcome. Trust is developed from different sets of dimensions like Nations cultures, norms, values and behavior and cognitive process like predictions, assumptions and transference (Doney, Cannon, and Mullen 1998). Bell, Oppenheimer and Bastien (2002) studied the relationship between two firms who acted as buyers and sellers. They Proposed that the process of Trust Determination in a buyer supplier relationship depends upon different dimensions of Trust like Benevolence, integrity related issues and control. Waheed and Gaur (2003) studied the relationship between Customer dependence, customer satisfaction and customer Trust. They found out that there is a positive relationship between customer dependence, customer satisfaction and customer Trust. They also identified the determinants of customer dependence and explained the effects customer dependence on customer satisfaction and Customer Trust. The results were based on a study carried out in farmer-chemical fertilizer-retailer interpersonal based buyer-seller relationship in India. Liu and Wu (2007) examined what can be the effects on customer retention and cross-buying when aspects like location convenience, one-stop shopping convenience, firm reputation, firm expertise, and direct mailings are considered. They proposed that Customer retention is the result of repetitive decision by the customers, but cross buying decision making process is a more complicated process. Satisfaction and Trust are also examined and their relationship with factors like attributes, customer retention, and cross-buying are also brought about. Their results signified that service companies like bank use different service attributes to influence customer retention and cross-buying. O'Donnell et al. (2008) studied the effect of various modes of governance has on Trust building in buyer-seller relationships. They took Trust as dependent variable and mutual investments and goal congruence as two independent variables. They found out that the mutual investments made by the firms and the goal alignments or goal congruence and these investments have a positive impact on the level of Trust between buying and selling firms.

Hernandez and Santos (2010) proposed and validated a Trust measurement model for buyer-seller relationships. They developed a model which used Trust and its dimensions like calculus-based, knowledge-based and identification-based. They found out that Trust is a multidimensional construct and it changes its nature according to the stage of relationship and items involved.

The research on Trust and organization going in synchronization have grown recently but still it cannot be gen-

eralized that Trust always coordinates with the organization culture and workplace. Companies do business on the basis of Trust (Lane 1998). These Trust factors involve parties like Individual, other companies, buyers, suppliers, employees, etc. Organizations with highly trustworthy individual have a competitive advantage over those organizations that don't have trustworthy individual working for them (Lane 1998). Working in organization involves dependence upon colleagues, peers and Bosses. People depend on different groups and individual in an organization to get their work done and achieve personal and organizational goals (Mayer and Schoorman 1995). Mayer and Schoorman (1995) proposed that Trust construct is different from other constructs like cooperation, confidence and predictability. Dale's (1971) research on Trust and Managerial Problem solving discussed about Trust and its interaction with information flow, influence, and control. He reported his experiment based on problem-solving effectiveness. Dale (1971) found out that there are major differences in effectiveness between the high-Trust groups and the low-Trust groups. This was in respect to the clarification of goals, the reality of information exchanged, the scope of search for solutions, and the commitment of managers to implement solutions.

Competition has generated a sense of requirement of Trust to do business in the Competitive business environment (Huff and Kelley 2003). Companies going for joint ventures, mergers, strategic alliance, and outsourcing require a high level of Trust and mutual understanding among themselves. This inculcates in selecting and developing Individual and groups with high amount of Trustworthiness among organization (Huff and Kelley 2003). There have been very few researchers who have done relationship of Trust between Collectivism and Individualism. It is implicit from some studies that Trust factor is high in collectivist society and low in Individualistic society. The reason for this can be said to that collectivism society have more independent world view and they give more importance to relationships and care about them more than what happens in Individualistic society (Huff et al. 2003). Chan (2003) did research on Trust and Distrust in companies and work environment. He found out that companies have employed highly controlling security measures and intensive employee monitoring techniques which has lead to distrust among people. Chan (2003) described the reason for this was the espionage activities in which the employees were indulged due to fierce competition in the market.

In India Celebrities are considered high on Status and credibility. This is also due to the cultural values and norms followed by Indians (Hofstede 1984). Celebrities can be Sports personalities, Movie stars, Political leaders, and Page 3 people. They have wide recognition in the society and mass followers as well as persona attached to them through

frequent media limelight (Gupta and Dang 2009).

The other construct we used in this study to measure Brand Credibility is Expertise. Various authors have defined expertise as "authoritativeness" (McCroskey 1966), "competence" (Whitehead 1968), "expertness" (Applbaum and Anatol 1972), or "qualification" (Berlo, Lemert, and Mertz 1969).

Expertise about a particular product or brand helps Customers to formulate cues or infer signals about the products. This is also said to be the brand signaling concept. The Brand signaling concepts helps in identifying the cues involved in consumer favorability towards a particular brand. Brand Signals can be defined as cues of marketing mix strategies and activities associated with the brand of a particular firm from which the brand originates (Erdem and Swait 1998). These activities provide information about the product and services provided by the firm and thus help the consumer evaluate them accordingly. Advertising and promotional activities done by firm help consumer identify the elementary properties of the product and this affects consumer buying behaviour.

Moreover consumer go for repeated purchases when the signals or cues provided by the companies turn into actual outcome after usage of the particular product or service (Benjamin et al. 2006). This makes the study of Brand signaling important as these cues affect the cognitive and affective behavior of the consumer.

Selling through other distributors can also be used as a brand signaling for the products (Chu and Chu 1994). They (Chu and Chu 1994) empirically tested that Manufacturers with high quality products using reputed channels of retailers for sales have good amount of sales even if their Brand name is not recognized in the market. Manufacturers can use the reputation of Retailers to give indications about their product quality and thus enjoy the repute of the retailer. This can also go wrong if the quality of the product is not as better as what has been promised to the customer. In the long run companies can loose its brand equity and loyalty of customers if the company is not able to provide quality goods as shown to the customers through signals of its marketing mix (Rao et al. 1999). Rao et al.(1999) also proposed that brand can send two kind of signal i.e. first that the decrease in the product quality would result in decrease of the brand equity and nullify the expenditure done previously and second one is that the future expectation about the product generating revenues would also be affected if there is no congruency between the cues received by the customers and the feature of the product.

Multinationals use Umbrella branding as strategy to send cues to customer about a new product. This helps customer to identify and relate the new product in the market (Wernerfelt 1988). This strategy also helps the companies

to position their new product/services in the market. Companies who had spent huge amount of money in creating brand and increasing its brand equity can help it budding products/services to join the league of its successful counterparts.

Brand Credibility refers to the objective and subjective components of the believability of a source or message of the brand. Credibility has two key components: trustworthiness and expertise, which both have objective and subjective components. Trustworthiness is based more on subjective factors, but can include objective measurements such as established reliability” (Erdem and Swait 2004).

Brand Involvement

Involvement has been identified as a variable significantly affecting the processing of information (Petty and Cacioppo 1979), and has been recognized as a good indicator of motivation to process the message (Cels and Olson 1988; Petty and Cacioppo 1979; Zaichkowsky 1985)

Involvement is defined as “A person’s perceived relevance of the object based of inherent needs, values, and interests” (Zaichkowsky 1985). Researchers have suggested that involvement could be an important variable which mediates the effect of comparative advertising (Ash and Wee 1983). Brand involvement is a significant cause of brand commitment (Knox and Walker 1995). In advertising research the construct Involvement is used as the receiver is personally affected, and thus motivated, to respond to the ad (Petty and Cacioppo 1981).

Zaichkowsky(1985) developed Involvement scale and measured involvement in 20 items. He used a 7 point semantic differential scale to measure them. The Involvement scale successfully met standards for internal reliability, reliability over time, content validity, criterion validity, and construct validity (Zaichkowsky 1985). Since his scale were positively related to perceived differences among brands, brand preferences, interest in gathering information about product category, and comparison of product attributes among brands we have used his scale to measure Brand Involvement.

The 20 items were important-unimportant, of no concern to me-of concern, irrelevant-relevant, means a lot to me-means nothing to me, useless-useful, valuable-worthless, trivial-fundamental, beneficial-not beneficial, matters to me-does not matters to me, uninterested-interested, significant-insignificant, vital-superfluous, boring-interesting unexciting-exciting, appealing-unappealing, mundane-fascinating, essential-nonessential, undesirable-desirable wanted-unwanted, not needed-needed. In our study we have taken 5 items from the Zaichkowsky Involvement scale. They are my brand is Important to me, my brand is of no concern to me, my brand means a lot to me, my brand matters to

me, my brand is Significant to me (Zaichkowsky 1983).

Hypothesis and Model Development

Many researchers have tried to measure Brand equity and study its antecedents. The antecedents like Country of origin image, Brand signaling, Brand Power, etc. Country of origin (COOI) can be an important determinant affecting the Brand equity of products. COOI is defined as the consumer’s perception of the image of the country where the brand originates (Yasin et al. 2007). Countries like Japan is famous for it technology and China is famous for its Manufacturing of cheap goods. Customers would generally have a bend in the minds that the companies originating from these countries would have a similar orientation towards technology and manufacturing respectively (Yasin et al. 2007). When talking of brand signals, Brand Signals can be defined as cues of marketing mix strategies and activities associated with the brand of a particular firm from which the brand originates (Erdem and Swait 1998). But few have tried to study the impact of Brand involvement and Brand Credibility on Brand equity. Erdem and swait (2004) worked on a similar lines when doing research on Brand Credibility. No such research has been done taking into consideration Brand Involvement. In this paper we have studying the impact of Brand Involvement and Brand Credibility on Brand Equity of the product. This results us in formulating the three Hypotheses

- H1: Brand Involvement of a product has positive and significant impact on Brand equity of the product.
- H2: Brand Credibility of a product has positive and significant impact on brand equity of the product.
- H3: Brand Credibility of the product impact the Brand Involvement of the product significantly.

Under this premise we have developed a conceptual model given below.

The Proposed Conceptual Model

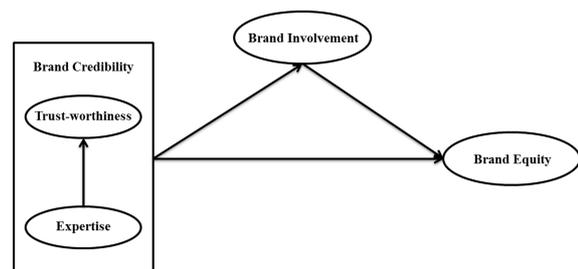


Fig. 1 Brand Credibility and Brand Involvement as an Antecedent Conceptual Model

Research Methodology

The conceptual model is given above. We have tried to propose from the model that Brand Credibility and Brand Involvement act as an antecedent to Brand Equity. We have used the Brand Credibility scale (Erdem and Swait 2004), Brand Involvement scale (Zaichkowsky 1983), and Brand Equity (Yoo and Donthu 2001) scale to measure them. Two product categories of Mobile Phones and laptops are taken into consideration. The two data sets were collected to test the measurement model and structural model in SEM as a two-stage structure equation modeling approach (Gerbing and Anderson 1988) was used for data analysis.

In this approach, the first step is to develop a measurement model first and then it is evaluated. Then a full structural model is done with the final set of data. The data used for the measurement model was from the mobile phone brands data collected by the questionnaire. The structured online questionnaire was developed on Google Docs interface and mailed to 300 people of heterogeneous group on the basis of age, education, income (Demographics). Out of the 400, 147 questionnaires were received back (30 mail IDs failed and 123 did not answer; 36.7%, a good response rate). The responses were collected on the various items of Brand credibility (Expertise, Trustworthiness), Brand Involvement and Brand Equity. In our study to measure Brand Involvement we have taken 5 items from the Zaichkowsky Involvement scale (Zaichkowsky 1983). They are my brand is Important to me, my brand is of no concern to me, my brand means a lot to me, my brand matters to me, my brand is Significant to me.

To measure Brand Credibility i.e. to measure the two construct Trustworthiness and Expertise we have taken the Brand Credibility scale developed by Erdem and Swait (2004). The items for trustworthiness are my brand has the ability to deliver what it promises, my brand delivers what it promises, my brand claims are believable, over time, my experiences with my brand have led me to expect it to keep its promises, no more and no less, my brand has a name you can trust, my brand doesn't pretend to be something it isn't. The Item used by Erdem and Swait to measure Expertise is my brand reminds me of someone who's competent and knows what he/she is doing (Erdem and Swait 2004).

To measure Brand Equity model we have used Yoo and Donthu (2001) scale on measuring customer based Brand Equity. The Items used are, it makes sense to buy my brand instead of any other brand, even if they are the same, even if another brand has same features as my brand, I would prefer to buy my brand. If there is another brand as good as my brand, I prefer to buy my brand. If another brand is not different from my brand in any way, it seems

smarter to purchase my brand.

Structural equation modeling has been used to do the testing of the model and with the help of AMOS and data was analyzed and interpreted. SEM is a statistical technique for testing and estimating causal relations among constructs applying a combination of statistical data and qualitative causal assumptions. SEM provides both exploratory and confirmatory modeling, meaning they are suited to both theory testing and theory development. Here, theory testing would be comparison of models and theory building would be conceptualization of integrated model.

Data Analysis

A two-stage structure equation modeling approach (Gerbing and Anderson 1988) was used for data analysis. In this approach, the first step is to develop a measurement model first and then it is evaluated. Then a full structural model is done with the final set of data. The data used for the measurement model was from the responses given for the mobile phone brands in the questionnaire.

Measurement Model

The foremost step in the data analysis is to establish the convergent and discriminant validity of the constructs. For this, a confirmatory factor analysis (CFA) of measurement model was done using AMOS 16.0. The Data set used was of the mobile phone. The initial measurement model was reflecting adequate model fit but number of indicators per item was large. Subsequently, the measurement model in the CFA was further refined by deleting items. Items were deleted, one at a time, on the basis of their standardized residual i.e. those having a larger amount of error variance with their measurement items.

Each item deleted was cautiously read to ensure that its error variance also seems reasonable from theoretical viewpoint. This procedure is similar to the standard AMOS methodology (Gefen et al. 2000; Gerbing and Anderson 1988), and also scale development process of Churchill (1979).

After deleting items, the CFA model depicted acceptable model fit. The chi-square value (CMIN) of 98.4 with 62 degree of freedom resulted in chi-square to degree of freedom ratio (CMIN/df), at 1.587 is less than the recommended value of 4 (Hair et al. 2010). Seven commonly used model-fit were estimated to assess the model's overall goodness of fit. Table 1 is showing all seven estimated model fit indices for measurement model.

Table 1 Model fit indices for measurement model and structural model

Model fit Indices	Recommended Value*	Measurement Model	Structural Model
Chi-square to degree of freedom ratio (CMIN/df)	3.000 or below	1.580	1.587
Goodness of fit index (GFI)	0.900 or above	0.981	0.900
Adjusted goodness of fit index (AGFI)	0.800 or above	0.901	0.869
Normed fit index (NFI)	0.900 or above	0.922	0.880
Comparative fit index (CFI)	0.900 or above	0.969	0.937
Root mean square residual (RMSR)	0.100 or below	0.070	0.090
Root mean square of error approximate (RMSEA)	0.070 or below	0.047	0.057

*Recommended values as suggested by Anderson and Gerbing (1988) and Hair et al. (2010)

Measurement Reliability

To assess measurement reliability, Fornell and Larcker (1981) has emphasized on both the reliability of each indicator variable (measurement item) as well as the reliability of each construct. Reliability of each item is measured by squared multiple correlation (SMC). SMC represents the amount of variance explained by an individual indicator/item of its respective factor; and measured by square of its (indicator's) standardized factor loading. Column 5 of Table 2 represents that all values of SMC are greater than cutoff of 0.30 suggested by Bagozzi and Yi (1988). Reliability of each construct is assessed by Cronbach alpha. Cronbach (1951) mentioned that this measure of internal consistency is parallel to Cronbach alpha value (α); except that later one priori assumes that each item contributes equally to its respective factor. As expected both CR and α values are very close and above the acceptable cut-off criterion of 0.7 suggested by Hair et al. (2010).

Construct Validity

Hair et al. (2010) have suggested that in SEM, construct validity can be assessed by convergent validity and discriminant validity. Convergent validity is defined as "the items that are indicators of a specific construct should converge or share a high proportion of variance in common" (Hair et al. 2010). Anderson and Gerbing (1988) advised that "convergent validity can be appraised from the measurement model by determining whether each indicator's estimated pattern coefficient on its hypothesized underlying construct factor is significant." According to Hair et al. (2010), there are three common approaches to ensure convergent validity by researcher: Standardized factor loading (0.5 or greater), Average variance explained (0.5 or higher), and Construct/Composite reliability (0.7 or above). As showed in Table 2, each standardized factor loadings (λ) was statistically significant ($p < 0.001$) and loadings ranged from 0.604 to 0.926, which reflect adequate convergent validity. The values of average value explained (AVE) and construct reliability (same discussed above 'composite reliability') were also more than their cut-off level 0.5 and 0.7 respectively and acceptable. Therefore, these measures exhibited adequate convergent validity.

Table 2 Measurement reliability of items and constructs

Construct	Item	Mean (S. D.)	λ	SMC	CR	α	AVE
Brand Credibility	BC1	5.47(1.40)	0.775	0.601			
	BC2	5.24(1.26)	0.798	0.637			
	BC3	5.66(1.55)	0.604	0.365	0.772	0.763	0.519
	BC4	5.32(1.28)	0.738	0.657			
	BC5	5.64(1.54)	0.644	0.335			
Brand Involvement	BI1	5.21(1.33)	0.770	0.592			
	BI2	5.04(1.41)	0.671	0.450			
	BI3	5.30(1.34)	0.750	0.563	0.742	0.739	0.602
	BI4	4.46(1.49)	0.926	0.658			
	BI5	4.58(1.41)	0.866	0.750			
Brand Equity	BE1	4.33(1.49)	0.801	0.642			
	BE2	4.66(1.54)	0.703	0.594			
	BE3	4.12(1.62)	0.801	0.541	0.891	0.890	0.605
	BE4	4.64(1.52)	0.701	0.644			

Note (Abbreviation): S.D. = Standard Deviation, λ = Standardized Factor Loading, SMC = Squared Multiple Correlation, CR = Composite Reliability, α = Cronbach Alpha, AVE= Average Variance Explained

Discriminant validity is defined as “the extent to which a construct is truly distinct from another construct” (Hair et al. 2010). There could be two way to assess discriminant validity: Pair-wise construct comparison method (Bagozzi and Philips 1982; Anderson and Gerbing 1988; Bagozzi and Yi 1988) and comparison of shared variance between factors with the average variance explained of individual factor (Fornell and Larcker 1981). In pair wise comparison method, we compare the all 3 possible pairs for each factor separately. For each pair, the chi-square value of full model was compared with the chi-square value of the collapse model (one pair of constructs was collapsed). More precisely, in the collapsed model, the model is same as full model but the one pair of target factors were constrained to have a correlation of 1.

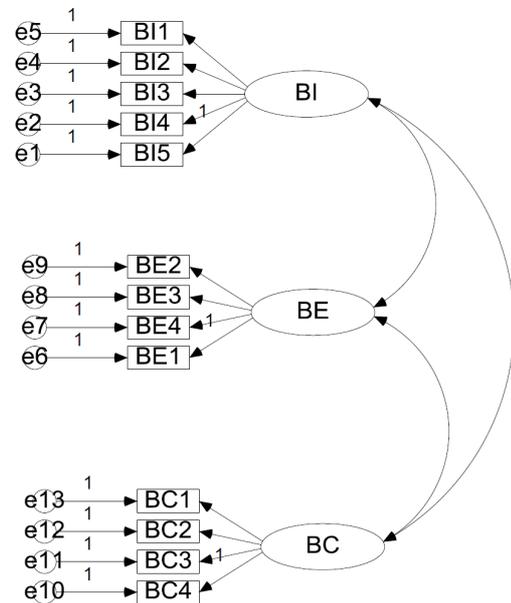


Figure 2-a Measurement Model

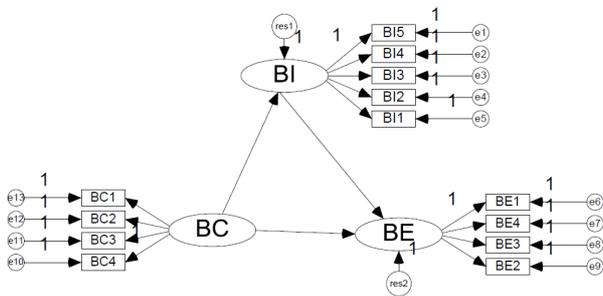


Figure 2-b Structural Model

The idea here is that if the chi-square value of collapsed model is less and significant than those values of full model i.e. collapsed model is reflecting better fit than full model, then discriminant validity is insufficient (Anderson and Gerbing 1988; Bagozzi and Philips 1982; Hair et al. 2010). Table 3 exhibits that for each possible collapsed model; the chi-square value of full model is significantly less than that of collapsed model. This suggests that all 3 factors are significantly different from each other.

Table 3 Pair-wise construct comparison for discriminant validity

Model	Chi-square value (d.f.)
Original Model	98.4(62)
Brand Involvement and Brand Equity	132.8(63)
Brand Credibility and Brand Equity	129.1(63)
Brand Equity and Brand Involvement	149.6(63)

Moreover, to examine discriminant validity, we also compare the variance among construct with the value of average variance explained. Table 4 presented the correlation matrix of constructs, where non-diagonal elements are covariance among constructs and diagonal elements are square root of average variance explained by that construct. Fornell and Larcker (1981) suggest that the diagonal value should be greater than non-diagonal value for adequate dis-

Results and Findings

Table 5 Results of hypothesis testing

Hypothesis	Hypothesized Relationship	Path Coefficient	Result
H1	BC à BE	0.595***	Supported
H2	BI à BE	0.761***	Supported
H3	BC à BI	0.048 (ns)	Not supported

Note: * p<0.05, ** p<0.01, *** p<0.001, ns = not significant

criminant validity. Table 4 clearly shows that all three factors are different from each other.

Table 4 Comparison of inter-construct correlation with AVE for discriminant validity

Constructs	BI	BC	BE
BI	0.720		
BC	0.19	0.77	
BE	0.59	0.63	0.78

Note: Diagonal elements are square-root of average variance explained; Non-diagonal elements are co-variance between constructs.

Structural Model: Measurement of Research Hypotheses

Given the acceptable convergent validity and discriminant validity, the estimation of structural model then constitutes confirmatory assessment of nomological validity (Campbell 1960; Cronbach and Meethi 1955). Anderson and Gerbing (1988) suggested that in two step approach, “there is much to gain in theory testing and the assessment of construct validity from separate estimation (and re-specification) of the measurement model prior to the simultaneous estimation of the measurement model and structural model.” Following this suggestion, we used a different data set for measurement of structural model. Here we used the data collected on the Mobile Phones Brand. The structural model also fitted well with chi-square value of 98.47 and degree of freedom 62. As mention in Table 1, except normed fit index (NFI), all model fit indices were well above/below the acceptable threshold value of indices for CFA suggested by Anderson and Gerbing (1988). Modification index shows that if we freeing the error terms of website design and perceived usefulness to be correlate that value reached to acceptable range. But freeing the parameters without strong theoretical support is highly criticized by Cliff (1983); so we did not eliminate the constraint between those measurement errors. Since NFI at 0.88 is just below the cutoff of 0.90 and all other model fit indices of structural model fit were well satisfied, we proceed with analysis of results.

After analyzing H1, H2 and H3 we find out that both hypotheses H1 and H2 (H1: $\beta = 0.595$, $p < 0.001$) and (H2: $\beta = 0.761$, $p < 0.001$) are found to be significant and H3 (H3: $\beta = 0.048$, $p = 0.711$) is insignificant. Findings indicate that Brand equity of a product could be affected by It Brand Credibility (H1: $\beta = 0.595$, $p < 0.001$). However, path coefficients also suggest that Brand Involvement has significant impact on Brand Equity of the product (H2: $\beta = 0.761$, $p < 0.001$). On the other hand Brand Credibility and Brand Involvement have no significant relationship or insignificant relationship. Brand Credibility has insignificant impact on Brand Credibility of a product (H3: $\beta = 0.048$, $p = 0.711$). These findings confirm that two of the three hypotheses formulated by us are correct.

Managerial Implication

Findings indicate that Brand equity of a product could be affected by It Brand Credibility. Hence companies have to work on developing credibility in the minds of the customer and try to focus on improving on trustworthiness, attractiveness and expertise of the brand. This can be done with the help of using celebrity endorsers who have high trustworthiness among the consumers. Also the packaging of the product would impact on the quality of the product thus affecting the brand as a whole. Also expertise can be portrayed by using the previous experiences of people using the brand. People's point of view would give huge credential for the brand as an expert on its core functions. Also Brand Involvement has significant impact on Brand Equity of the product. When the customer is highly involved in purchasing decision and the brand is very important to the customer the brand can charge premium for it thus creating equity for it. Thus when these aspects go in synchronisation, this will lead to a high Brand equity and value creation.

Limitations and Future research

Initially data was collected on Mobile phones and Laptops. The Data used here in the study was of the Mobile phones brands. Future research can be done considering the Laptop brands which are more hedonic in nature. More over the data signified that young populations (age 21-25) were more inclined towards brands like Apple and Blackberry (n=30) i.e. Hedonic in nature. People with more income (9 Lakhs and above also gave preference to these brands (n=10). Middle income groups (3 lakhs-6 lakhs) were giving preferences to Brands like Nokia, Micromax and Samsung. (n=50). The Total population consisted of N=147. So in the future the same research can be done in the Hedonic perspective, and also depending upon the

products which are high Involvement in nature or products which are low involvement in nature.

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