Determinants of Brand Equity in Indian Car Manufacturing Firms

U. Thiripurasundari and P. Natarajan

Abstract—**Brands have become increasingly important components of culture and the economy, now being described as "cultural accessories and personal philosophies". Brand Building process is a value addition technique which projects the image of the product, the company and the country at large. To study the problem effectively, car industry is chosen taking into the account the emergence of many new brands of the car product in the recent past. The objective of the study is to describe the measuring Models of Brand Equity applicable to Car Industry. The results of the study show that brand preference and brand loyalty plays an important role in creating brand equity. These components of brand equity must be coherent in their actions so that consistent image of the firm is realized and value by customers. This paper gives an empirical outcome of the determinants of brand Equity with special reference to Indian Car Industry.**

***Index Terms*—Brand, Brand Equity, Brand Preference, Brand Loyalty, Indian Car Industry.**

I. Introduction

A Brand is a name or trademark connected with a product or producer. Brands have become increasingly important components of culture and the economy, now being described as "cultural accessories and personal philosophies". Brands are valued for the equity; they add value.

Everyone in the marketing profession agrees that brands can add substantial value. It is a fact that sometimes that brand becomes a burden. It is established that brands can be value enhancers and also decrease the profit. Brand Building process is a value addition technique which projects the image of the product, the company and the country at large.

Brand strategy aids businesses in achieving their targeted performance. The area of brand equity has received significant research attention in recent years. The study of brand equity is increasingly popular as some marketing researchers have concluded that brands are one of the most valuable assets that companies possess. As a result, current marketing research attempts to conceptualize, measure and manage brand equity in a way that drive brand market performance and helps firms in strategic decision making. This paper gives an empirical outcome of the determinants of Brand Equity with special reference to Indian Car Industry.

"Brand Equity is a set of brand asset and liability linked to a brand, its name and symbol add to or subtract from the value provided by a product or service to a firm and /or to the firm's customers" (Aaker 1991)

"Brand Equity is defined in terms of marketing effects uniquely attributable to the brands for example when certain outcomes result from the marketing of a product or service because of its brand name that would not occur if the same product or service did not have the name" (Keller 1993)

Brand Equity refers to the marketing effects or outcomes that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name. It is to observe that at the root of these marketing effects is consumers' knowledge. In other words, consumers' knowledge about a brand makes manufacturers/advertisers respond differently or adopt appropriately adept measures for the marketing of the brand.

II. Review of Literature

A brief description about the literature relating to this research topic is given below, Brand equity has been examined from two differentperspectives – financial and customer based. The first perspective of brand equity that is not discussed in this article is the financial asset value it creates to the business franchise. This method measures the outcome of customer-based brand equity.

Initially, brand equity was conceptualized as consisting of consumers' brand associations that include brand awareness, knowledge and image (Keller, 1991, 1993). As stated earlier, brand equity is regarded as consisting of two components – brand strength and brand value (Srivastava and Shocker, 1991). Our interest is in brand strength, which constitutes the brand associations held by the brand's customers. Some researchers view brand equity as perceived brand quality of both the brand's tangible and intangible components (Kamakura and Russell, 1991).

According to Cathy et al (1995), the issue of the brand equity has emerged as one of the most critical areas for marketing management in the 1990s. This study explores some of the consequences of brand equity. In particular, it examines the effect of brand equity on consumer preferences and purchase intentions. For comparative purposes, two sets of brand were tested one from a service category characterized by fairly high financial and functional risk (hotel), and another from a generally lower risk product category(household cleansers). Each set includes two brands that are objectively similar (based on consumer Reports rating), but they have invested markedly different levels of advertising spending over the past decade. Across both categories, the brand with higher advertising budget yielded

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substantially higher levels of brand equity. In turn, the brand with higher equity in each category generated significantly greater preferences and purchase intentions.

From the point of view, Ching (et al 2008), the relationships between brand equity, brand preference and purchase intentions on international air passengers' decisions in Taiwan. The findings indicate positive relationships between brand equity, brand preference, and purchase intentions with a moderation effect of switching cost affecting the relationship between brand equity and purchase intentions. More specifically, the effect of brand equity on purchase intentions is not significant for passengers with low switching costs.

Kyung Hoon (et al 2008), suggests his studies relating to Health care marketers face unique challenges around the world, the role of the health care field plays in contributing to public welfare. Hospital marketing in Korea is particularly challenging since Korean law prohibits hospitals from running any advertising. As a result, Korean hospitals depend heavily on customer relationship management (CRM). This study identifies five factors that influence the creation of bra d equity through successful customer's relationships, trust, customer satisfaction, relationship commitment, brand loyalty and brand awareness. An empirical test of the relationships among these factors suggests that hospitals can be successful in creating image and positive brand equity if they can manage their customer relationships well.

Chang et al (2009), the antecedents of brand equity are considered to be brand attitude and brand image, and the consequences of brand equity are considered to be brand preference and purchase intentions. This study concentrates on service brands, selecting 18 from 3 service categories. A structural equation model is presented. Not only does it show a good fit with the research constructs but also the relationships between brand image and brand equity, and brand attitude and brand equity. The impact of brand equity on customer preference and purchase intentions is confirmed as well, which tends to validate the proposed research framework.

Manoj Pandey & Dr. J.K. Raju (2009), the outcome of brand positioning is brand perception which can be gathered from multiple routes including customer experiences, marketing communication efforts and word of mouth. The perception of the brand is critical as is apparent from the huge amount of money being spent by organization on brand development and measurement. Still very little is known about the relationship between brand perception and customer behaviour including customer loyalty. This study has been conducted empirically by testing two hypotheses about the relationship between brand perception and brand loyalty. The first part of the research shows very little evidence that any one brand attribute is more relevant or related to brand loyalty than other brand attributes. The second part observes that higher number of attribute association with brand leads to higher brand loyalty. It also emphasizes that brand uniqueness is critical in getting the customer attention however the source to create that uniqueness is critical in getting the customer attention. In addition to the above, the paper discusses different short and long term strategies of brand development.

Dr. P. Natarajan & Thiripurasundari U. (2010), in their paper Brand Preference on 'B' Segment Maruti Cars, emphasized that strong brands quality increase trust in intangible products enabling customers to better visualize and understand them. The Brand Preference towards Maruti B Segment cars is studied by administering structured interview schedule to150 customers in Puducherry city. Maruti should take the initiative to introduce new models according to the choice of the customers at regularintervals which will pave the way to be No.1 Company in India in the near future. While the customer gets satisfaction and is able to improve his/her standard of living and quality of life, the marketer profits from the brand experience that the customer gets and is able to generate a surplus after ensuring satisfaction to the consumer.

Dr. P. Natarajan & U. Thiripurasundari (2010) these studies observe that consumer preference of global brands vs. local brands in the Indian car industry. Consumer brand perceptions have substantial implications in Marketing. The customers' preference towards local and global brands is studied by administering structured interview schedule with 150 customers in Puducherry city. The findings of the study advised that the consumers who possessed global car brands, preferred their car brands due to factors such as global presence, worldwide reputation and quality of being a foreign made. Consumers made favourable perceptions the country, wherein they tend to associate factors such as superior quality, technical advancements, modernization etc. to the country from which the brand had taken its origin. Consumers who owned a local brand evaluated the local brand in a favourable manner, wherein they tend to associate the brand to India's strong automobile sector that makes quality and technically efficient cars.

Thus, the review of literature reveals that many studies on Brand Equity were done only on FMCG Products and Service Sector units. This study focuses on durable goods relating to automobile industry, especially Passenger cars. Further, literature review vividly shows that the studies were focused on building and conceptualizing brand equity with no consensus on how to measure it or what constructs to include in the measurement process. Therefore, there is an urgent need to identify and opertionalize brand equity constructs in a way that allows researchers to empirically measure them and effectively analyze the key factors associated with brand equity performance.

III. Statement of the Problem

In the globally prevailing competitive environment corporates are very keen in promoting brands and creating brand value to project their products and sustain in the market. This in term could be capitalized in the name of brand equity. Hence, it is very much essential to know the determinants and measurement of brand equity and its implication on value of the firm.

Being the abstract nature of the concept, it is difficult to measure Brand Equity and ensure the value of the firm. This particular feature made the researcher to take up the research topic on brand equity. To study the problem effectively, car industry is chosen taking into the account the emergence of many new brands of the car product in the recent past.

A. Objectives of The Study

The specific objectives of the study are:

- To identify the factors determining Brand Equity in the Car Industry.
- To develop a Customer Based Brand Equity Model.

B. Methodology of The Study

The study is an empirical research based upon Primary and Secondary data. A detailed survey has to be conducted from among car owners with the help of structured interview schedule so as to elicit first-hand information about brand equity. Besides, data from the secondary sources will also be collected to assess the brand equity raised by the selected car manufacturing units. This particular study has used in depth interview as a means for obtaining primary data. Survey method has been adopted to elicit the views of local and global brand car owners. The customers' preference towards local and global brands is studied by administering structured interview schedule with 200 customers in Puducherry city. The researchers have adopted cluster-sampling techniques for choosing sample respondents. The dealers of selected car brands are identified as clusters. Based on the literature review, the researcher has proposed for Brand Equity with several dimensions viz. Brand Knowledge, Brand Application and Brand Relationship.

C. Reliability Analysis

EXHIBIT 1 RELIABILITY ANALYSIS

Constructs	No. of questions	Alpha
Brand Knowledge	3	0.76
Brand Application	12	0.86
Brand Relationship	6	0.83
Brand Preferences	3	0.87
Brand Loyalty	3	0.78

To analyze the reliability of questionnaire items used in this study, Cronbach's alpha was used with the following results: Brand knowledge scale incorporates three items on awareness, recognition & familiarity. Brand application scale integrates the 12 items covering Quality, Prestige, Value, Brand relationship scale includes both customer satisfaction & Customer loyalty, and finally brand equity scale covers all 30 items. Thus, alpha ranged from 0.7 to 0.95, which is a satisfactory level. According to Nunnally (1994) a scale of alpha > 0.7 is considered reliable. Exhibit 1 summarizes these results.

D. Brand Knowledge

Brand knowledge is composed of three constructs Brand Awareness, Brand recognition and Brand Familiarity. Brand Awareness is defined as the percentage of consumers that recognize a brand. Familiarity scale developed by Simonin & Ruth (1998) is "composed of three five point semantic differentials intended to measure a person's familiarity with a specified brand name.

E. Brand Application

Brand Application is composed of four constructs: Quality, Value, Prestige, and Affect. Chaudhuri and Holbrook (2001) developed a scale named "affective Response to Brand ", measuring the degree of positive affect a consumer has towards a brand. The 'Prestige' construct is measured using a scale called 'Prestigiousness' developed by Kirmani, Sood & Bridges (1999). This scale measures how much a person considers some specific object to be high call and exclusive. This study applies the scale to contest of brands. The 'Perceived Quality' scale used in this study has been developed by Aaker & Keller (1992) in a study that focused on core brands and evaluation of brand extensions. This scale has been slightly modified to be appropriate to the contest of the study that focused on core brands and evaluation of brand extension. This scale has been slightly modified to be appropriate to the contest of the study that focuses on the automotive industry. The 'Perceived Value' construct is measured through a scale developed by Sweeney & Sotar (2001), attesting to assess the utility derived from the perceived economic value of a particular brand.

F. Brand Relationship

Brand Relationship is composed of two constructs: Satisfaction and Customer Loyalty. Customer Satisfaction scale measures the level of satisfaction a consumer experiences with a brand's performance. While the scale by Tsiros & Mittal(2000) asked respondents to expect the reaction of others based on knowledge, this study utilizes the scale for self-reporting purposes. 'Customer Loyalty' construct is measured using a scaled developed by Yoo, Donthu & Lee in 2000. The scale attempts to capture consumer's general loyalty to a specified brand

G. Brand Preference

Brand Preference constructs is measured through one of the studies by Sirgy et al. 1997 to measure self-image congruency. The scale compares a focal brand to a referent brand. This study compares the focal brand to other competing brands presented in the survey.

H. Brand Loyalty

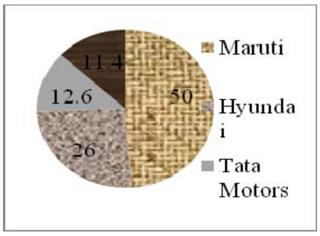
Brand Loyalty construct is measured through a scale called Behavioural Intention developed by Cronin, Brady & Hult in 2000. This scale measures the likelihood that a person will use some object again. This scale is used in this study in the context of brands.

I. Selection of the Corporate Brand

This study aims to focus on the Indian car Industry, specifically the three segments of cars viz. A, B & C category are keeping price as the parameter. As on date, there are twenty car manufacturers in Indian Car Industry. The major players of Indian car Industry are Maruti Suzuki India Ltd, Hyundai Motors Indian Ltd, and Tata Motors. According to a survey by the Automotive Component Manufacturers

Association of India (ACMA), the market share of passenger cars in India in the year 2009-10 states that Maruti have 50% market share, Hyundai have 26% market share and Tata Motors have 12.7% market share. In total, 88% market shares are occupied by these three major brands. Hence, the researcher has decided to confine the study only with these three main brands.

J. Major Players of Passenger Cars



IV. RESULTS AND DISCUSSION

A. General Profile of The Respondents

The personal characteristics of the selected respondents are presented in Exhibit 2 that the maximum number of the respondents falls in the age of group of 31 to 40 with the sample size of 88 constituting 44%. 72 (36%) respondents fall in the age group of 21 to 30 years and minimum number of the respondents is in the age group of above 40 with the sample size of 40 constituting 20%. According to sex-wise classification majority of the respondents are male with sample size of 144 constituting 72% and remaining are female respondents. Similarly, the majority of the respondents are married with sample size of 168 constituting 84% and the rest are unmarried. Exhibit 2 clearly indicates that the educational status, 40% respondents is up to school level, 38% of the respondents who have educational qualification U.G./Diploma and residual 22% of the respondents have educational qualification P.G. & above. It is inferred from the Exhibit 1 that the 56% of the respondents are running their own Business, 24 % of the respondents are government employee and rest 20 % of the respondents are private employee. Out of 200 respondents, the majority of the sample 100 (50 %) are constituted above Rs. 7 Lakhs income group.

EXHIBIT 2 DEMOGRAPHIC PROFILE OF THE SAMPLE

Particulars	Classification	No. of Respondents	%
Age (years	Below 30	72	36
	31-40	**88**	**44**
	41- 50	40	20
Sex	**Male**	**144**	**72**
	Female	56	28
Marital Status	**Married**	**168**	**84**
	Unmarried	32	16
Educational Status	**UptoSchool level**	**80**	**40**
	U.G Level	72	38
	P.G. & Above	44	22
Occupation	Govt. Employee	48	24
	Private Employee	40	20
	Own Business	**112**	**56**
Annual Income (Rs.)	Below 3 Lakhs	40	20
	3 Lak to 7 Laks	60	30
	Above 7 Lakhs	**100**	**50**

Source: Primary Data

B. Brand Preferences of The Respondents

The car owners respondents of various are clearly depicted in the exhibit 3, 60% of the respondents have Maruti car, 24% of the respondents have Hyundai cars and rest of the 16% of the respondents have Tata cars. It clearly shows that nearly 76% of the respondents have national brand cars like Maruti & Tata and the rest of the 24 % of the respondents have Global brand cars like Hyundai.

EXHIBIT 3 CAR MODEL

Car Brand	No. of Respondents	%
Maruti Cars	120	**60**
Hyundai Cars	48	24
Tata cars	32	16
Total	200	100

Source: Primary Data

C. Discussion

The correlation matrix indicates that (exhibit 4) Pearson Correlation between each pair of metric variables in the model is significant. This is primarily attributed to the large sample size. It is a good indication of the strong relationships among constructs in the model. While all correlations are found significant, some of them are very strong correlation.

EXHIBIT 4 CORRELATION OF BRAND EQUITY VARIABLES

Details	BK	BQ	BV	BP	CS	CL	BL	BPR
BK	1							
BQ	.248*	1						
BV	.236*	.466**	1					
BP	.023	.077	.239**	1				
CS	.345*	.048	.266**	.257*	1			
CL	.341*	.226**	.393**	.092	.205*	1		
BL	.073	.262**	.044	.286*	.157	.243*	1	
BPR	.370**	.255**	.167*	.081	.507*	.325**	.266**	1

** Significant @ 1% level
*Significant @ 5% level

EXHIBIT 5 REGRESSION ON RESEARCH VARIABLE ON BRAND EQUITY

Dimensions of Brand Equity	Brand Preference	Brand Loyalty
Brand knowledge	0.919 (.013)	0.18 (.769)
Brand quality	0.73 (.321)	0.232 (.001)
Brand value	0.269 (.000)	0.097 (.000)
Brand prestige	0.88 (.269)	0.366 (.000)
Customer satisfaction	0.217 (.003)	0.205 (.002)
Customer loyalty	0.116 (.18)	0.081 (.246)
R^2 & Adjusted R^2 F Statistics	0.309 & 0.275 16.129 (0.00)	0.359 & 0.335 21.216 (0.00)

Upper figures are standardized regression weights (β) and lower brackets are Significant Values

Almost 31% of the variance in Brand Preference was explained by (Exhibit 5) Model 1 (adjusted $R^2 = 29\%$). Brand Quality and customer Satisfaction are most important factors in explaining Brand Preference. This implies that sources of brand quality and customer satisfaction are heavily relied on as inputs towards supporting brand preference by the respondents. In Model 2, Brand quality, brand value, brand prestige and customer satisfaction able to explain brand loyalty better compared to the rest of the factors. The model explained almost 36% (adjusted R^2=34%) of the variance. Brand equity has significantly positive effects on both brand preference and loyalty

V. Conclusion

This study adds to the growing body of literature on brand equity by examining how brand knowledge, brand applications, brand relationships, brand preferences and brand loyalty impacts on building up of brand equity. In trying to create strong brand equity, company should be interested in assessing the degree of customer brand dependence. The brand strength depends on the perception of customers. Satisfied and loyal customers indicate positive perceptions of brand. In time when competition is getting powerful, it is imperative for the firm to seriously evaluate factors that are not only important in creating strong brand equity but also assist them in achieving customer satisfaction and loyalty. The results of the study shows that brand preference and brand loyalty play an important role in creating brand equity. These components of brand equity must be coherent in their actions so that consistent image of the firm is realized and valued by customers.

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