EMPIRICAL EVIDENCE ON DYNAMIC OF BRAND EQUITY:
INDIAN CAR INDUSTRY

U. Thiripurasundari

Ph.D. Scholar in Commerce
School of Management
Pondicherry University
Puducherry, India.

Dr. P. Natarajan

Professor of Commerce
School of Management
Pondicherry University
Puducherry, India.

ABSTRACT

A brand is defined as a specific name, symbol or design or, more usually some combination of these, that is used to distinguish a particular seller's product. Today with a considerable change over time, there is an increase in modern and sophisticated branding of both tangibles and intangibles. Brands, particularly those that are high in brand equity (value of the brand) can be organizations most powerful assets. 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. In time when competition is getting passionate, 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.

Keywords: Brand, Brand Preference, Brand Loyalty, Brand Equity & Indian car Industry.

Brands and Branding:

Branding is the art and cornerstone of marketing (Kotler, 2003).

A brand is defined as a specific name, symbol or design- or, more usually some combination of these, that is used to distinguish a particular seller's product (Doyle, 2002). Branding exists from the very early times to distinguish the goods of one producer from those of another. The word 'brand' derives from the Old Norse word 'brandr' which means to burn and brands were and still are the means by which owners of livestock marked their animals. From branding the livestock, early man moved on to branding those wares- where a potter for example would identify the pots by putting a mark like a thumbprint into the wet clay on the bottom of the pot and the potter would expect customers to seek out those products which carried such a mark (Interbrand,1990). Today with a considerable change over time, there is an increase in modern and sophisticated branding of both tangibles and intangibles

Brand Equity:

Brands, particularly those that are high in brand equity (value of the brand) can be organizations most powerful assets (Herremans et al., 2000). It allows organizations to enjoy high brand loyalty, name awareness, perceived quality and strong brand associations with customers (Bristow et al., 2000). Besides building on long term customer loyalty, organizations with high brand equity can create differential advantage. Bharadwaj et al., (1993) stress that brand equity is important for services that are dominated by experience and credence attributes, such as services. Credence attributes conclude any product or service characteristics that customers cannot determine or evaluate even after purchase or consumption.

Review of Literature:

A brief description about the literature relating to this research topic is given below Brand equity has been examined from two different perspectives – financial and customer based. In this article customer-based brand equity has been discussed widely.

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 J. Cobb-Walgren, et al (1995), the issue of the brand equity has emerged as one of the most critical areas for marketing management in the 1990s. Despite strong interest in the subject, however, there is little empirical evidence of how brand value is created and what its precise effects are. 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. It is a comparative study on two sets of brand are tested one from a service category characterized by fairly high financial and functional risk(hotel), and one 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 substantially higher levels of brand equity. In turn, the brand with higher equity in each category generated significantly greater preferences and purchase intentions.

Ching Fu Chen & Yu-Ying Chang (2008), in their study examines 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), suggest in their study related to Health care, marketers face unique challenges around the world, during in part to the role 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.

From the point of view of 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 to empirically test 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 regular intervals 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.

The review of literature reveals that many studies were done Brand Equity 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 market performance.

This study is to gauge brand equity as flow concept rather stock that previous researchers have carried out, that is, the study would like to show dynamic forms with evidence that brand equity has been

fluctuated during a certain period. As a consequence, this makes academic contributing by presenting concrete evidence that brand power has been dynamically changed. Besides a practical fields marketing activities can be adjusted by capturing brand power is high or small during the period.

Industry Overview:

The car industry in India is chosen for studying consumer perception of global brands vs. local brands for the simple reason that the automobile sector in India is consistent by growing in spite of severe odds in the global market. The car segment is specifically chosen as it is highly competitive with well established and flourishing global and national brands.

Indian Automobile Industry – An Overview:

India is emerging as one of the most attractive automotive markets in the world, and is poised to become a key sourcing base for auto components. The Indian automotive sector has a presence across all vehicle segments and key components. In terms of volume, two wheelers dominate the sector, with nearly 80 per cent share, followed by passenger vehicles with 13 per cent. Passenger vehicles consist of passenger cars and utility vehicles. The industry had a few players and was protected from global competition till the 1990s. After government lifted licensing in 1993, 17 new ventures have come up. At present, there are 12 manufacturers of passenger cars, 5 manufacturers of multi utility vehicles (MUVs), 9 manufacturers of commercial vehicles, 12 of two wheelers and 4 of three wheelers, besides 5 manufacturers of engines. With the arrival of global players, the sector has become highly competitive.

**Emerging Car Market In India:**

The advent of cars in India dates back to 1898 when the first motorcar rode down India's roads. From then till the First World War, about 4,000 cars were directly imported to India from foreign manufacturers. During 1948, the first car was manufactured in India. In 1993, with the winds of liberalization sweeping the Indian car market, many multinationals like Daewoo, Peugeot, General Motors, Mercedes- Benz and Fiat came into the Indian car market. Since the 80s, the Indian car Industry has seen a major resurgence with the opening up of Indian shores to foreign manufacturers and collaborators. The 90s became the melting point for the car industry in India. The consumer being the king, was constantly wooed by both the Indian and foreign manufacturers. Though sales had taken a dip in the first few months of 1999, it is back to its boom time. High- end models are being launched rapidly and are flourishing. As already said, Indian automobile industry is highly competitive with a large number of players in each industry segment. Most of the global majors are present in the passenger vehicle and two wheeler segments. The key players in passenger vehicles segment in India are Tata Motors, Maruti Udyog, Honda Motors, Hyundai Motors, Toyota, Skoda, Daimler Chrysler, and Hindustan Motors. Mercedes, BMW, Porsche, Audi, Bentley and Rolls Royce have been effectively functioning. (IBEF, 2006).

Selection Of The Corporate Brand:

This study aims to focus on the Indian car Industry, specifically the four segment cars i.e. A, B, C & D segment cars. 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 2008-09 states that Maruti have 50% market share, Hyundai have 26% market share and Tata Motors have 12.7% market share. In total, 88% market share is

occupied by these three major brands. Hence, the authors have decided to confine the study only with these three key brands.

MAJOR PLAYERS OF PASSENGER CARS
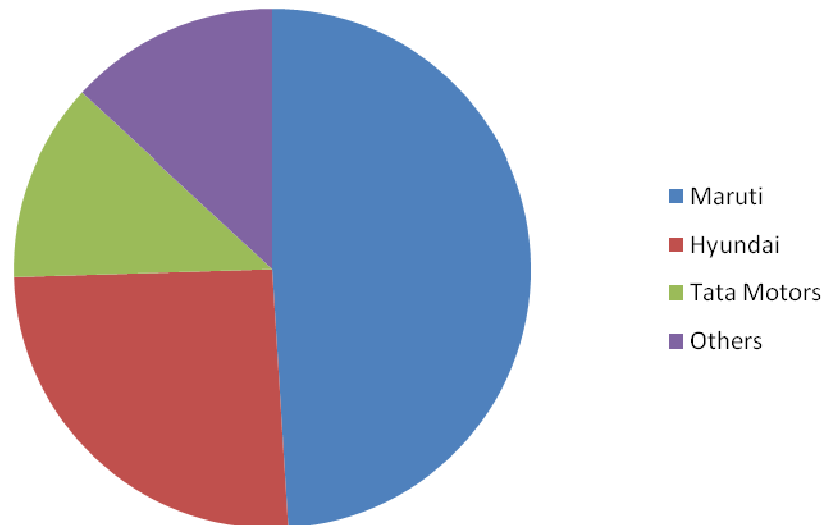
National Car Brands:

A brief description about the national car brands chosen for the study is given below:

Maruti Suzuki India Limited is the premier car company in India. Maruti Udyog Limited (MUL) was established in Feb 1981. The company entered into collaboration with Suzuki Motor Corporation of Japan to manufacture cars. Maruti is the highest volume car manufacturer in Asia, outside Japan and Korea. Despite there being 19 companies now in the passenger car market in India, Maruti holds about 50% of the total market share. Maruti Udyog Limited has many unique service advantages for the customers. On 17 th September 2007, Maruti Udyog was renamed as Suzuki India Limited. Both in terms of volume of vehicles sold and revenue earned, the company is India's leading automobile manufacturer and the market leader in the car segment. It has bagged the First Position in JD Power Customer Satisfaction Index for the consecutive ten years. The company has also ranked highest in the India Sales Satisfaction Study. The models of Maruti Udyog Limited cars are Maruti 800, Maruti Alto, Maruti Zen, Maruti Zen Classic, Maruti Esteem, Maruti Gypsy, Omni, Wagon R, Versa, Baleno, Swift and Grand Vitara.

Tata Motors Limited is India's largest automobile company with large revenues. It ranks first in the category of commercial vehicles and the second largest in the passenger vehicles, mid size car and utility vehicle segments. The company is the world's fifth largest medium and heavy commercial vehicle manufacturer. Over 3.5 million Tata vehicles are moving on Indian roads, since 1954. The models of the company are Tata Indigo, Tata Indica, Tata Sumo, Tata Safari and Tata Indigo Marina.

International Car Brands:

Hyundai, a fast reaching global car penetrated deeply in the Indian car market is narrated here.

Hyundai Motor India Limited (HMIL) was established in 1996 and is a wholly owned subsidiary of South Korean multinational, Hyundai Motor Company. HMIL is the fastest growing and the second largest car manufacturer in India and presently selling 30 variants of passenger cars in six segments. The Company has set up more than 70 dealer workshops that are equipped with the latest technology,

machinery, and international quality press, body and paint shops, across the country, thereby providing a one-stop shop for a Hyundai customer. Hyundai also has a fleet of 78 emergency road service cars that can provide emergency service to all its customers anytime, anywhere. The models of Hyundai are Santro, Getz, Accent, Elantra, Sonata, Tucson, Terracan. The awaited models of Hyundai Motors are Verna, Getz next generation and Santa Fe.

Objectives of The Study:

1. Assess the customers perception towards the performance of different brands of cars
2. Identify the factors influencing of Brand Equity
3. Identify the differences in demographic groups towards factors of brand equity.

Methodology of The Study:

It is an explorative nature of the study based on survey method. Both primary data and secondary data were collected from the relevant sources. The secondary data for this particular study were collected through marketing journals and other existing reports that were based on the topic. Secondary data helped the researcher to create better comprehension of consumer perceptions. 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, Brand Relationship Brand Preference and Brand Loyalty.

Brand Knowledge:

Brand knowledge is composed of two constructs Brand Awareness 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.

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.

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

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.

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.

Reliability Analysis:

To analyze the reliability of questionnaire items used in this study, Cronbach's alpha was used with the following results: Brand knowledge 0.76, brand application 0.86, brand relationship 0.83, brand preferences 0.87, brand loyalty 0.78. Thus, alpha ranged from 0.7 to 0.95, which is a satisfactory level. Exhibit 1 summarizes these results.

Results & Discussion:

Personal Characteristics 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 1 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.

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 international brand cars like Hyundai.

Research Results:

A series of steps were taken to estimate the Brand equity of the car owners. From the literature point of view to identify the underlying factors of brand equity. These factors so identified were further analyzed by ANOVAs. Next the performed Anova on the factors identified comparing differences in demographic groups towards the factors of brand equity. Anova tables were generated for all the demographic variables to unearth the differences among the groups. Age groups, sex, marital status, occupation, educational qualification income and preferred cars were the variables taken for analysis. The F-ratios for all the factors across demographic variables are presented in exhibit number 4 to 10. The analysis of variance did not show any differences among age groups, sex, marital status, educational qualification, occupation, income and preferred cars for any of the factors, which suggests that he perceptions are same irrespective of the demography. The five underlying factors, Brand Knowledge, Brand Application, Brand Relationship Brand Preference and Brand Loyalty make up measures of brand equity. The researchers recommend that these dimensions should be the integral components in designing brand equity studies towards passenger cars. The study indicates that there are no significant differences in age, sex, educational qualification, occupational, income groups and preferred car groups towards factors of brand equity.

Conclusion:

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 passionate, 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.

References:

[1] Aakar ,David & Kavin Keller (1992), " The Effects of Sequential Introduction of Brand Extention" Journal of Marketing Research, 29, 1 (February) 35-50

[2] Cathy J. Cobb-Walgren, Cynthia A. Ruble, Naveen Donthu (1995), Brand Equity, Brand Preference, and Purchase Intent, Journal of Advertising, Vol. 24, No. 3 (Autumn, 1995), pp. 25-40.

[3] Chaudhuri, Arjun & Morris B. Hollbrook (2001), "The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty", Journal of Mrketing, 65 (April),81-93

[4] Chang, Hsin Hsin and Liu, Ya Ming 'The impact of brand equity on brand preference and purchase intentions in the service industries', The Service Industries Journal, 29: 12 (2009), pp 1687 – 1706

[5] Ching Fu Chen & Yu-Ying Chang," Airline brand equity, brand preference, and purchase intentions – The moderating effects of switching costs", Journal of Air Transport Management 14 (2008) pp 40–42.

[6]   Cronin, Jr., Joseph, Michael K. brand & G. Tomas Hult (2000), "Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioural Intentions in Service Environments," Journal of Retailing, 79 (2),193-218

[7]   Dr. P.Natarajan & Thiripurasundari U. "A study on Brand Preference of 'B' Segment cars" (with ref. to Maruti Cars), International Journal of Business Intelligence and Management, Vol. 2, No.1-2, (2010) pp 165-174.

[8]   Doyle, P. (2002), Marketing Management and Strategy, 3rd edn, Pearson education Ltd.

[9]   Keller,Kevin L.(1993), "Conceptualizing, Measuring and managing Customer-Based Brand Equity", Journal of Marketing, 57(January),1-22.

[10] Kirmani,Amna,Sanjay Sood &sheri Bridges (1999),"The Ownership Effect in Consumer Responses to Brand Line stretches", Journal of Marketing, 63 (January), 88-101.

[11] Kyung Hoon Kim,Kang Sik Kim,Dong Yul Kim,Jong Ho Kim,Suk Hou Kang (2008), Brand Equity in Hospital Marketing, Journal of Business Research 61 (2008) pp.75-82

[12] Manoj Pandey & Dr. J.K. Raju (2009), Analyzing Relationship between Brand Perception and Customer Loyalty in Life Insurance Industry, The Journal – Contemporary Management Research, Vol.3, No 1, March (2009).

[13] Simonin, Bernared L. & Julie A. Ruth (1998),"Is a Company known by the Company it keeps? Assessing the Spillover Effects of Brand Alliances on Consumer Brand Attitudes", journal of Marketing Research, 35 (February), 30-42.

[14] Sirgy,JosephM., Dhruv Grewal, Tamara F. Mangleburg, Park, Kye-sung Chon, C.B. Claiborne, J.s. Johar & Harold Berkman(1997), Journal of the Academy of marketing Science,25,3 (summer)229-241.

[15] Sweemey, Jillian C., Geoffrey N. Soutrar & Lester W. Johnson (1999), "The role of Perceived Risk in the Quality-value Relationship: International Journal of Research in Marketing 10:23-45

[16] Tsiros, Micheal & vikas Mittal 92000), " Regret : A Model of its Antecedents & Consequocnes in Consumer Decision making", journal of Consumer Research 26 (March),401-417

[17] Yoo, Boonghee, Naveen Donthy & Sungho Lee (2000), " An Examination of Selected Marketing Mix Elements and Brand Equity", Journal of the /academy of Marketing Scienc, 28(2),195-211.

[18] www.marutisuzuki.com

[19] www.hyundai.com

[20] www.tatamotors.com

[21] www.automobileindia.com

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

Source: Primary Data

Exhibit 2:   Demographic Profile of the Sample

Particulars	Classification	No. of Respondents	%
Age	Below 30 years	72	36
	31-40 years	88	**44**
	41- 50 Years	40	20
Sex	**Male**	**144**	**72**
	Female	56	28
Marital Status	**Married**	168	**84**
	Unmarried	32	16
Educational Status	**Upto School level**	80	**40**
	U.G/Diploma Level	76	38
	P.G. & Above	44	22
Occupation	Government Employee	48	24
	Private Employee	40	20
	Own Business	**112**	**56**
Income Status	Below Rs. 3 Lakhs	40	20
	Rs. 3 Lakhs to Rs.7 Lakhs	60	30
	Above ` 7 Lakhs	**100**	**50**

Source: Primary Data

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

Exhibit 4:
Results of ANOVA showing relationship between age and factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.230	2	.115	.482	.618
	Within Groups	46.987	197	.239		
	Total	47.217	199			
Brand Quality	Between Groups	.718	2	.356		
	Within Groups	39.626	197	.201	1.772	.173
	Total	40.339	199			
Brand Value	Between Groups	5.815	2	2.909	4.097	
	Within Groups	40.651	197	.206		.204
	Total	46.469	199			
Brand Prestige	Between Groups	9.327	2	4.664	2.995	.543
	Within Groups	43.761	197	.222		
	Total	53.055	199			

Customer Satisfaction	Between Groups	1.838	2	.919	5.787	.004
	Within Groups	31.279	197	.159		
	Total	33.117	199			
Customer Loyalty	Between Groups	2.158	2	1.079	8.458	.454
	Within Groups	25.131	197	.125		
	Total	27.288	199			
Brand Preference	Between Groups	2.421	2	1.210	8.328	.305
	Within Groups	28.635	197	.145		
	Total	31.056	199			
Brand Loyalty	Between Groups	5.614	2	2.507	9.179	.564
	Within Groups	28.834	197	.146		
	Total	34.449	199			

Exhibit 5: results of ANOVA showing relationship between sex and factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.102	1	.102	.427	.514
	Within Groups	47.116	198	.235		
	Total	47.217	199			
Brand Quality	Between Groups	1.110	1	1.110	5.605	
	Within Groups	39.229	198	.195		.019
	Total	40.339	199			
Brand Value	Between Groups	.039	1	.039	.167	
	Within Groups	46.430	198	.234		.683
	Total	46.469	199			
Brand Prestige	Between Groups	.143	1	.143	.534	.456
	Within Groups	52.945	198	2.67		
	Total	53.055	199			
Customer Satisfaction	Between Groups	3.291	1	3.291	1.547	.065
	Within Groups	29.526	198	.151		
	Total	33.117	199			
Customer Loyalty	Between Groups	1.181	1	1.151	3.959	.053
	Within Groups	26.107	198	.132		
	Total	27.288	199			
Brand Preference	Between Groups	3.434	1	3.454	2.023	.305
	Within Groups	27.571	198	.139		
	Total	31.056	199			
Brand Loyalty	Between Groups	.445	1	.445	2.590	.109
	Within Groups	34.004	198	.174		
	Total	34.449	199			

Exhibit 6:
Results of ANNOVA showing relationship between marital status and
Factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.004	1	.004	.016	.899
	Within Groups	47.213	198	.238		
	Total	47.217	199			
Brand Quality	Between Groups	.005	1	.005	.024	
	Within Groups	40.334	198	.001		.878
	Total	40.339	199			
Brand Value	Between Groups	6.434	1	6.434	3.822	
	Within Groups	40.034	198	.202		.564
	Total	46.469	199			
Brand Prestige	Between Groups	065	1	.065	.244	622
	Within Groups	53.025	198	.265		
	Total	53.055	199			
Customer Satisfaction	Between Groups	.354	1	.354	2.142	.145
	Within Groups	32.763	198	.165		
	Total	33.117	199			
Customer Loyalty	Between Groups	1.272	1	1.271	2.676	.062
	Within Groups	26.017	198	.131		
	Total	27.288	199			
Brand Preference	Between Groups	2.975	1	2.978	2.997	.560
	Within Groups	28.075	198	.142		
	Total	31.056	199			
Brand Loyalty	Between Groups	.489	1	.459	2.851	.093
	Within Groups	33.960	198	.172		
	Total	34.449	199			

Exhibit 7: Results of ANOVA showing relationship between education
Qualification and factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.139	3	.046	.193	.091
	Within Groups	47.078	196	.240		
	Total	47.217	199			
Brand Quality	Between Groups	6.027	3	2.009	1.176	
	Within Groups	34.312	196	.175		.786
	Total	40.339	199			
Brand Value	Between Groups	16.673	3	5.558	2.559	
	Within Groups	29.796	196	.152		.653
	Total	40.339	199			
Brand	Between Groups	5.677	3	1.384	2.823	.564

Prestige	Within Groups	47.411	196	.148		
	Total	46.469	199			
Customer Satisfaction	Between Groups	54.153	3	2.502	3.365	.304
	Within Groups	28.964	196	.101		
	Total	35.17	199			
Customer Loyalty	Between Groups	7.507	3	1.892	2.796	.478
	Within Groups	19.781	196	.242		
	Total	27.285	199			
Brand Preference	Between Groups	8.263	3	1.808	2.402	.875
	Within Groups	22.793	196	.156		
	Total	31.056	199			
Brand Loyalty	Between Groups	3.925	3	2.754	3.685	.873
	Within Groups	30.523	196	.116		
	Total	34.449	199			

Exhibit 8: Results of ANOVA showing relationship between occupation and Factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.096	3	.032	.133	.940
	Within Groups	47.121	196	.240		
	Total	47.217	199			
Brand Quality	Between Groups	4.635	3	1.545	3.481	
	Within Groups	35.705	196	.182		.769
	Total	40.339	199			
Brand Value	Between Groups	6.707	3	2.236	1.021	
	Within Groups	39.761	196	.203		.043
	Total	46.469	199			
Brand Prestige	Between Groups	4.922	3	1.641	2.676	.143
	Within Groups	48.167	196	.246		
	Total	53.055	199			
Customer Satisfaction	Between Groups	12.921	3	4.307	1.801	.808
	Within Groups	20.196	196	.103		
	Total	33.117	199			
Customer Loyalty	Between Groups	1.384	3	4.307	3.489	.017
	Within Groups	25.905	196	.132		
	Total	27.288	199			
Brand Preference	Between Groups	1.447	3	.482	2.834	.543
	Within Groups	29.608	196	.151		
	Total	31.056	199			
Brand Loyalty	Between Groups	3.262	3	1.087	1.194	.025
	Within Groups	31.187	196	.159		
	Total	34.449	199			

Exhibit 9: Results of ANOVA showing relationship between income and Factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.014	2	.007	.029	.587
	Within Groups	47.203	197	.240		
	Total	47.217	199			
Brand Quality	Between Groups	6.591	2	5.296	2.237	
	Within Groups	33.745	197	.171		.972
	Total	40.339	199			
Brand Value	Between Groups	4.139	2	2.070	3.632	
	Within Groups	42.329	197	.215		.604
	Total	46.469	199			
Brand Prestige	Between Groups	6.178	2	3.089	1.973	.645
	Within Groups	46.910	197	.238		
	Total	53.088	199			
Customer Satisfaction	Between Groups	10.009	2	5.004	4.663	.687
	Within Groups	23.108	197	.117		
	Total	33.117	199			
Customer Loyalty	Between Groups	2.689	2	1.345	1.768	.874
	Within Groups	24.599	197	.125		
	Total	27.288	199			
Brand Preference	Between Groups	.148	2	.074	.473	.624
	Within Groups	30.907	197	.157		
	Total	31.056	199			
Brand Loyalty	Between Groups	5.591	2	2.795	2.082	.783
	Within Groups	28.858	197	.146		
	Total	31.056	199			

Exhibit 10: Results of ANOVA showing relationship between car brand and Factors of brand equity

Factors	Groups	Sum of Squares	D.F	Mean Square	F	Sig
Brand Knowledge	Between Groups	.232	2	.116	.486	.616
	Within Groups	46.985	197	.239		
	Total	47.217	199			
Brand Quality	Between Groups	1.779	2	.890	3.545	
	Within Groups	38.560	197	.196		.012
	Total	40.339	199			
Brand Value	Between Groups	.052	2	.26	.110	
	Within Groups	46.417	197	.236		.896
	Total	46.469	199			
Brand Prestige	Between Groups	1.933	2	.967	3.722	.026
	Within Groups	51.155	197	.260		

	Total	53.088	199			
Customer Satisfaction	Between Groups	1.790	2	.895	2.625	.004
	Within Groups	31.327	197	.159		
	Total	33.117	199			
Customer Loyalty	Between Groups	.650	2	.325	2.404	.093
	Within Groups	26.635	197	.135		
	Total	27.285	199			
Brand Preference	Between Groups	.627	2	.313	2.029	.134
	Within Groups	30.429	197	.154		
	Total	31.056	199			
Brand Loyalty	Between Groups	.786	2	.393.	2.299	
	Within Groups	33.663	197	.171		.103
	Total	34.449	199			

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