Marketing Mix Elements Influencing Brand Equity and Brand Choice

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This study develops and empirically tests a model for determining the determinants and effects of brand equity for the Indian passenger car market. Towards the same, the Brand Equity Creation Model developed by Yoo, Donthu and Lee (2000) was expanded and combined with the Brand Choice Model developed by Erdem, et al (1999). The dimensions of brand equity were thought to affect Overall Brand Equity, which in turn affected the final brand choice made by the consumers. The effect that ten selected marketing activities had on the dimensions of brand equity was examined. The passenger car market was differentiated on the basis of the price of car as premium, volume, and economy type and shopping centre intercept survey was conducted to collect respondent data across ten centres throughout the country. Multiple time passenger car buyers were considered as the respondent base for the study. A total of 1,932 consumers were contacted and 302 valid responses were received. Structural Equation Model was used as the tool for analysis.

The results showed that:

• Of the ten marketing mix elements considered, some had a very strong impact on brand equity because they positively impacted both the dimensions considered for the study.

• However, contrary to what many previous studies reported, country of origin and price promotion did not impact the brand equity for such consumers.

• Advertising frequency is not a builder of brand equity; word-of-mouth is a better determinant of brand equity for repeat passenger car buyers.

The different results obtained in this study vis-a-vis those from earlier studies suggest that the cultural differences between consumers of two countries mediates the effect of the marketing efforts on brand equity creation. Again since each of the dimensions of brand equity under this study was found to positively impact brand choice, it has been posited that the probability of the consumers choosing the final brand is increased with an increase in the equity of the brand. Geographical limitation of the sample and absence of interaction of marketing mix elements amongst themselves were identified as some of the key limitations of the study.
Marketing strategy is often considered the most important means of establishing brand equity. Over the years, a large number of studies have explored how various marketing mix elements affect brand equity. This study combines the established models of Brand Equity Creation to examine the relationship between marketing activities and brand equity for passenger cars in the Indian market. Brand equity endowments come from the current or potential consumer learning which influences how the product is encoded and acted upon by consumers. It stands to reason that such learning is dynamic and influences consumer choice processes and outcomes, either directly or indirectly, by being influenced through the effectiveness of the branded product’s marketing mix elements. This work considers consumer choice as an outcome of brand equity and tries to analyse the effect different marketing mix elements might have on consumer’s final brand choice.

RELEVANCE OF THE STUDY

Compared to the previous studies, the authors explore more detailed marketing practices, and not just the broad marketing activities (the 4 P’s), to enhance the explanatory power of the brand equity phenomenon. None of the earlier studies differentiated the first-time buyers from the multiple-time buyers. Since, most of today’s consumers are multiple-time buyers of some product categories, the findings from this research should interest both the practitioners as well as the academics. Further, although considerable research has investigated how to employ marketing efforts to build brand equity, almost all the previous studies have focused mainly on the American and the other Western countries’ consumers’. Since consumers in different parts of the world vary in their attitudes and opinions concerning marketing activities (Dawar and Parker, 1994), results from those studies might not be suited for consumers in other countries having different culture and consumer behavior, such as the consumers in emerging markets. Lastly, while the outcome of building brand equity is manifold, like brand extension (Susan Mc Donald, 1990), ability of the brand to charge a price premium (Srinivasan, Park and Chang, 2005), and incremental cash flow (Simon and Sullivan, 1993), a major advantage of building brand equity lies in influencing the consumer choice decisions (Erdem, et al., 1999). This relationship of brand equity and choice seems to be poorly researched, especially in the area of consumer durables. This study would address these gaps in the existing literature.

CONCEPTUAL FRAMEWORK

Figure 1 exhibits our conception of brand equity, which is in fact an extension of the model proposed by Yoo, Donthu and Lee (2000). They expanded the model of Aaker (1991) and placed a separate construct called brand equity, between the dimensions of brand equity and value for the customer and the firm. The brand equity construct showed how individual dimensions were related to brand equity. Marketing activities were assumed to have significant effect on the dimensions of brand equity and hence, marketing activities were added as antecedents of brand equity in the model. We have extended the model proposed by Yoo, Donthu and Lee (2000), adding consumer choice due to the marketing activities as an effect of brand equity. Investigating the antecedents—dimensions—effect linkage is the objective of this research.

LITERATURE REVIEW

Brand Equity and its Dimensions

According to Aaker (1991), brand equity is a multidimensional concept. It consists of brand loyalty, brand
awareness, perceived quality, brand association, and other proprietary brand assets. Other researchers have also proposed similar dimensions. While some researchers have proposed brand loyalty and brand associations, Keller (1993) suggested brand knowledge, comprising brand awareness and brand image. Perceived quality has been defined as consumer’s subjective judgment about a product’s overall excellence or superiority. Brand loyalty is a deeply held commitment to re-buy a preferred product or service consistently in the future. Loyal customers have been found to show more favourable response to a brand than non-loyal customers. Brand association has been defined as anything linked in the memory of the consumers to a brand, while brand awareness has been defined as accessibility of the brand in the customer’s memory (Chattopadhyay, Shivani and Krishnan, 2008). Brand awareness along with strong brand association forms a strong brand image. Brand association, which results in high brand awareness, is positively related to brand equity as it can be a signal of quality and may thus help the buyer consider the brand at the point of purchase.

Analysis by Erdem, et al (1999) showed that the brand equity concept might be understood better if examined in a broader framework that assesses the incremental effect of the brand across the various stages of the consumer’s choice process. Thus, brand equity plays a role in how information is learned and then retrieved and used in making the choice. Information processing effects influence choice set generation and finally the decisions used in making the final choice. This broader definition extends the aggregate conceptualization inherent in the “additive” brand impact notion of brand equity to a more comprehensive approach that focuses on the brand’s role across the dynamic consumer choice processes.

Theoretical Framework

In order to generate meaningful research results for examining consumer attitudes towards marketing strategies of passenger cars, the proposed theoretical frameworks and findings from previous studies were analysed and a modified model was developed. Aaker (1991) formulated the proposal of brand equity, defining it as a set of assets and liabilities linked to a brand that create value for both customers and the firm. Aaker (1991, 1996) also suggested that each brand equity dimension can be achieved by a variety of marketing strategies.

Based on Aaker’s concept, Yoo, Donthu and Lee (2000) created the Brand Equity Creation Process Model to systematically examine the relationship among marketing efforts, brand equity dimensions, and brand equity. Their model was an extension of Aaker’s proposal which indicated that marketing activities had significant effects on brand equity dimensions, which in turn created and strengthened the equity. Thus, the relationship between marketing activities and brand equity is mediated by these dimensions. The study proved that significant relationship exists amongst the dimensions themselves.

As one of the first studies of its kind, this model provided a good starting point for further research on the linkage between marketing activities and brand equity. Since the Brand Equity Creation Process Model developed by Yoo, Donthu and Lee (2000) has been modified and expanded in this study to explore the relationship of marketing activities with brand equity and finally with brand choice in the passenger car market, the relationship between marketing efforts and brand equity would also be one of the primary focus of this study.

In this study, we have put together the model proposed by Yoo, Donthu and Lee (2000) and the one proposed by Erdem, et al (1999) to get a common model predicting consumer brand choice as an effect of the marketing mix variables. When Yoo, Donthu and Lee’s Brand Equity Creation Process Model was applied in this study, more marketing activities (like peer recommendation, event sponsorship, celebrity endorsement, and country of origin) were added to enhance the explanatory power of the brand equity phenomenon. In line with the work by Erdem, et al (1999), we estimated a pure brand choice model, ignoring the issues of quantity choice and inventories.

THE APPROACH

In line with the works by Desarbo and Manrai, 1992; Kirmani, Sood and Bridges, 1999; and Park, Milberg and Lawson, 1991, we distinguished between three types of automobiles: premium brands, volume brands, and economy brands and applied the classification to the Indian market. Accordingly, we defined prestige brands as brands which are priced greater than Rs. 9 lakh (20,000 USD); volume brands as brands priced between Rs. 5
lakh-9 lakh (11,000 USD-20,000 USD) while economy brands priced at less than Rs. 5 lakh (11,000 USD). All the prices considered were ex-showroom, New Delhi as on March 2008. Prestige brands have a high status symbol. These brands usually have a relatively small market share and are purchased to communicate wealth, status, and exclusivity (Bagwell and Bernheim, 1996; Park, Millberg and Lawson, 1991). Volume brands are usually priced near the market average and economy brands are sold in the low-end of the market.

**RESEARCH HYPOTHESES**

Throughout the study, we examined the perceived against the actual marketing mix elements for two reasons — first, it was not feasible to control the actual marketing mix elements in the study; second, perceived marketing efforts play a more direct role in consumer psychology than actual ones. Actual marketing actions cannot change consumer behaviour unless consumers perceive them to exist. Objective or actual marketing efforts have been conceptualized differently by consumers from perceived marketing efforts; actual efforts have been encoded by consumers to be “expensive” or “cheap” (Olson, 1977). Consumers are not likely to remember the actual marketing efforts like prices, even at the point of purchase (Dickson and Sawyer, 1990) nor are they expected to know many of the marketing mix elements that are done by different brands (advertising spends, number of dealers, etc).

**Marketing Mix Elements and Brand Equity**

Our model proposes that the effects of marketing activities are mediated by the dimensions of brand equity. To examine this relationship, we first had to investigate and determine the relationships between marketing activities and brand equity dimensions. We investigated consumers’ perceptions on ten selected marketing elements—price, store image, distribution intensity, advertising frequency, celebrity endorsement, price promotion, non-price promotions, event sponsorship, country-of-origin and word-of-mouth (WOM) recommendation. The selected factors do not embrace all types of marketing efforts, but are representative enough to demonstrate the relationship between marketing efforts and the dimensions of brand equity.

Amongst the four dimensions of brand equity, we have considered perceived quality and brand awareness as the dimensions to be studied. Since we have clubbed passenger cars as premium, volume, and economy and also since consumers can upgrade from a low end version of passenger cars towards the upper end version, brand loyalty was not studied as one of the dimensions. Further, in line with the study of Yoo and Donthu (2000), we did not study brand association as a separate dimension and combined brand association and awareness as one dimension — brand awareness — because brand association relied on the establishment of brand awareness (Aaker and Alvarez del Blanco, 1995). The effects of each of these dimensions on brand choice were also measured in the study.

**Price**

**H1.** The perceived quality of a brand is related positively to the extent to which the price of the brand is perceived to be high. Price premia being a proxy for elasticity of demand, this in turn, is a measure of brand perceived quality. Price premium reflects the brand’s ability to command a price higher than its competitors. The price premium construct is consequently important for all types of brands, despite their actual positioning within a category (Chattopadhyay, Shivani and Krishnan, 2009).

Prestige brands have a high status symbol because of higher pricing. Volume brands are usually priced near the market average and have relatively high market shares. Finally, economy brands are sold in the low-end segment of the market. These brands are more affordable and hence have the highest share amongst different brackets of cars in India. From the literature, we did not find any relationship between price and brand awareness.

**Distribution Intensity**

**H2A:** Perceived quality of a brand is related positively to the extent to which the brand is available in stores.

**H2B:** Brand awareness is related positively to the number of outlets for the brand.

Distribution is defined as intensive when products are available in a large number of stores in the market. It has been argued that certain types of distribution fit certain types of products. Consumers are expected to be
more satisfied, when a product is available in a greater number of stores. Intensive distribution reduces the time the consumers spend searching for the stores and travelling to and from the stores, provides convenience in purchase, and makes it easier to avail services of the products bought. The increased value results mostly from the reduction of sacrifices the consumers must make to acquire the product (Yoo, Donthu and Lee, 2000). Accordingly, increased distribution is likely to develop a positive perceived quality of the consumer towards the product. Distribution intensity helps develop brand awareness and recognition (Smith, 1992). A wide variety of possible distribution channels can improve the awareness of brands amongst potential consumers. Thus, on the basis of the literature cited above, the above hypotheses was proposed.

**Store Image**

**H3A:** Perceived quality of a brand is related positively to the extent to which the brand is distributed through stores with a good image.

**H3B:** Brand awareness is related positively to the extent to which the brand is distributed through stores with a good image.

Store image encompasses characteristics such as physical environment, service levels, and merchandise quality (Baker, Grewal Parasuraman, 1994; Zimmer and Golden, 1988). The influence of today’s channels on brand equity is beyond the “availability” factor in the marketing share equation, and retailers’ brand equity has been found to enhance the equity of the brands they carry based on the value the retailers provide to their customers (Srivastava and Shocker, 1991). Grewal, Krishnan and Borin (1998) found that store image provided a tremendous amount of information to consumers about store environment, customer service, and product quality; and the perceived quality of the brand was found to have a positive relationship with store image. A positive store image can increase a brand’s level of exposure in the marketplace, which can improve brand recognition and awareness. The distribution channel can directly affect the equity of the brands it sells by its supporting actions. However, when Ahmed and Astous (2004) investigated Indian consumers’ judgments of apparel products made in highly and newly industrialized states; they found that store type did not have a significant impact on judgments of perceived quality. They explained that the channels of distribution in emerging economies like India were establishing themselves as product promotional tools; so, the negligible effect of store type was understandable.

On the basis of the literature reviewed, we assume that there is a positive relationship between store image and perceived quality and brand awareness in the Indian automobile market.

**Advertising Frequency**

**H 4A:** Perceived quality of a brand is related positively to the advertising frequency of the brand.

**H 4B:** Brand awareness is related positively to the advertising frequency of the brand.

One of the major contributors to brand equity is advertising (Aaker and Biel, 1993). Lindsay (1990) argued that the greatest source of added value is consumer perceptions of the product or brand, which came from advertising that built a brand image. Maxwell (1989) further suggested that advertising is vital for creating a consistent flow of sales for brands, rather than relying on the artificial peaks and valleys of price promotion.

Advertising can influence brand equity in a number of ways. Across both service and product category research, Cobb-Walgren, *et al* (1995) found that the brand with the higher advertising budget had substantially higher levels of awareness. In other words, advertising creates awareness and increases the probability of the brand being included in the consumer’s choice set. According to Rice and Bennett (1998), effective advertising increases the level of brand awareness and improve attitudes toward the brand.

Studies have demonstrated that heavy advertising improves perceived quality (Nelson 1974) and higher levels of advertising signal higher brand quality (Milgrom and Roberts, 1986). Kirmani and Wright (1989) suggested that the perceived expense of a brand’s advertising campaign could influence consumers’ expectations of product quality. Klein and Leffler (1981) found that advertising levels were positively related to quality. Works by Philip P Abey (2007), revealed a strong bi-directional relationship between advertising and consumption pattern in emerging markets like India.

This study measures the advertising frequency of a
brand as perceived by the consumers across all advertising media that the consumer’s might consume.

**Price Promotions**

**H5A:** Perceived quality of a brand is related negatively to the price promotions used for the brand.

**H5B:** Brand awareness is related positively to the price promotions used for the brand.

**H5C:** Brand awareness is related positively to the non-price promotions used for the brand.

The characterization of equilibrium probability distribution over a range of prices has been defined as price promotion. The same can be implemented over a large number of periods where the demands over subsequent periods are independent of each other (Lal and Villas-Boas, 1996).

Past research, has studied the effect of such factors as inventory carrying costs, usage rates, number of loyal consumers on the price promotional strategies used by competitive brands. Blattberg, Briesch and Fox (1985) showed that retailers used price promotional strategies to reduce their inventory carrying costs. Works by Raju, Srinivasan and Lal (1990) showed that if some consumers had a lower inventory carrying costs than the retailers, then the optimal strategy for the retailer would be to offer periodic price discounts. Price discounts are likely to have a negative influence on perceptions of quality (Blattberg and Neslin, 1990), because a consumer who purchases a discounted product often “attributes” the fact of discounting to it being a poorer quality product (Dodson, Tybout and Sternthal, 1978).

On the basis of the literature reviewed, the above hypotheses on price promotion with brand equity was made.

**Frequency of Non-Price Promotions**

Sales promotion is a type of non-price promotion. There exists a distinction between price promotion and non-price promotion. While non-price promotions are usually framed as gains, price-oriented promotions are perceived as “reduced losses (Campbell and Diamond, 1989).

Non-price promotions are adapted primarily for their ability to meet such longer-term objectives as enhancing brand image or strengthening brand awareness. They add excitement and hence value to the brands (Aaker, 1991; Conlon, 1980). Some research has shown that non-price promotions can be employed to establish brand awareness and build primary demand for the product during the product introduction stage (Jagoda, 1984). However, we have not found any significant relationship between non-price promotion and perceived quality in the previous studies.

**Country of Origin**

**H6A:** Perceived quality is more for a brand which has originated outside India.

**H6B:** Brand awareness is higher for brands which have originated outside India

In the present study, we define country of origin as “the country from which the brand had originated initially from.” In today’s era of globalization, country of origin of the manufacturing brands is increasingly becoming more important than the actual country of manufacture. Thus, for example, though Honda and Chevrolet brands might be manufactured in India, for Indian consumers, Honda brand connotes a Japanese country of origin, while Chevrolet consumers feel that they are using an American brand. The impact of country-of-origin on consumer perceptions or evaluations of products is called the country-of-origin effects (Samiee, 1994). Thakor and Katsanis, (1997) suggested that country of origin effects impact the equity of certain brands. Indeed, a foreign sounding name is known to affect a brand’s equity (Leclerc, Schmitt and Dubé, 1994).

Brand equity remains a complex phenomenon in the international context (Onkvisit and Shaw, 1989) and the impact of country-of-origin on some of its components (e.g. perceived quality) has been widely researched in the marketing literature (Chao, 1998). Researchers have suggested that the effect varies from category to category (Pappu, Pascale and Ray, 2006). In this context, this research aims to develop a better understanding of the effect of the country-of-origin on brand equity for multiple-time car buyers in emerging markets like India since such buyers are expected to be more educated on the cars while going through the purchase behaviour.

**Word-of-Mouth (WOM)**

**H7A:** Perceived quality is positively influenced by positive WOM.
H7B: Brand awareness is positively influenced by positive WOM.

WOM is a form of communication that conveys information about the product and service in a verbal format, mainly through communication (Brown and Reingen, 1987; Herr, et al., 1991). At its core, WOM is a process of personal influence, in which interpersonal communications between a sender and a receiver can alter the receiver’s behaviour or attitudes (Merton, 1968).

Researches have suggested that the effectiveness of WOM information could be explained by the fact that the information is received in a face-to-face manner and this information is more accessible to the memory, rather than information received from a less vivid format, like mass media (Herr, et al., 1991). Other researchers have further suggested that the effectiveness of WOM can be attributed to the confidence and perceived credibility the receiver has in the information received. Often the information is sought out from people in whose opinions the receiver has extreme confidence (Kapferer, 1990). WOM has been found to be more pervasive under certain market conditions inclusive of evaluation of high involvement products and services. Kapferer (1990) explains this stating that high involvement products are important to consumers and the services received on such products could be classified as credence goods that are goods for which buyers have difficulty evaluating even after they consume the same. Under such conditions, consumers rely on information that represents the experiences of others and only such information is perceived as credible. Goldsmith and Horowitz (2006) proved that consumers relied on other consumers’ opinions to reduce their risks and obtain pre-purchase information. Escalas and Bettman (2003) in their work stated that reference groups are a strong source of brand awareness as they are linked to one’s mental representation of self to meet self-verification or enhancement goals. Brands used by member groups and aspiration groups are connected to consumer’s representation of self mentally as they use these brands to define and create their self construct.

Celebrity Endorsement

Hypothesis B8-1: Perceived quality of a brand is related positively to the celebrity endorsement used for the brand.

Hypothesis B8-2: Brand awareness is related positively to the celebrity endorsement used for the brand.

Celebrities have been defined as individuals who are known to the public (i.e., actor, sports figure, entertainer, etc.) for their achievements in areas other than that of the product class endorsed (Friedman and Friedman, 1979).

According to recent research statistics, the number of celebrity advertisements has doubled in the past ten years. One in four advertisements features celebrities today as opposed to one in eight in 1995 (Seno and Lucas, 2007). Though this statistics is related to consumer goods and services, there has also been an increase in the use of celebrities in the brand message communications among luxury brands.

Several studies suggest that when a brand becomes associated with a celebrity via the endorsement process, information regarding the celebrity’s activities and achievements get transferred to the brand and have an effect on its image (e.g., Till and Shimp, 1998). When a celebrity endorses a brand, the brand hopes that it can benefit from customers’ awareness of the celebrity, which could include the perception of quality, educational value, or a certain image. A credible celebrity endorser is normally a sign of high quality in consumers’ minds. Celebrity endorsement can be used for a variety of purposes — e.g., to attract attention to the product or brand (Kaikati, 1987), communicate its merits (Kamins, 1990), and penetrate commercial clutter (Miciak and Shanklin, 1994). Spielman (1981 showed that celebrities could be employed to enhance the subject’s attentiveness to the ad, make the copy more memorable, credible, or desirable, and effectively glamourize the product.

Event Sponsorship

H9A: Perceived quality of a brand is related positively to the events sponsored by the brand.

H9B: Brand awareness is related positively to the events sponsored by the brand.

Cornwell (1995) defined sponsorship-linked marketing as “the orchestration and implementation of marketing activities for the purpose of building and communicating an association to a sponsorship.” Previous research suggests that event sponsorship may increase both per-
ceived brand superiority (Crimmins and Horn, 1996) and corporate image (Stipp and Schiavone, 1996). According to Dean (1999), once a link between the sponsoring company and the event has been created and the feeling of goodwill towards the event has resulted in a feeling of goodwill towards the sponsor, a “halo effect” might then suggest to consumers that the sponsor’s products are superior to its competitors. The sponsorship of sports, causes, and events has become an established communication tool to build brand awareness and preference (Javalgi et al, 1994; Quester, 1997). Keller and Lehmann (2002) suggested that sponsored events can contribute to brand equity by increasing the awareness of the company or product name.

Amongst the emerging economies, event sponsorship has become an important marketing tool especially in China. Fan and Pfitzenmaier (2002) found that one of the benefits of event sponsorship in China was the opportunity to establish direct contact with the opinion leaders and innovators. Though we could not find any study which correlated event sponsorship and brand equity in the Indian context, on the basis of the previous studies in other countries, we have proposed our hypothesis.

**Relationship amongst Brand Equity Dimensions**

**H10:** The perceived quality of a brand is related positively to the extent to which brand awareness is evident in the product.

Perceived quality is based in part on brand awareness, as a visible brand might be considered more able to provide superior quality. Moreover, the principal characteristic of a brand is its position on the perceived quality dimension. High quality enables consumers to recognize the brand’s distinctiveness and superiority. Results from Yoo, Donthu and Lee (2000) support that there are significant intercorrelations amongst the dimensions of brand equity. In our current study, we have proposed the following relationship amongst the two brand equity dimensions that we have considered.

**Relationship amongst Brand Equity Dimensions and Brand Choice**

**H11A:** Brand choice is related positively to the perceived quality of the consumers.

**H11B:** Brand choice is related positively to the brand awareness of the brand.

Consumer Based Brand Equity (CBBE) as a concept, shares the view that the value of a brand to a firm is created through the brand’s effect on consumers. Past researches have shown that brand equity accrues over time via consumer learning and decision making processes (Erdem, et al., 1999; Erdem, Imai and Keane, 2003).

Analysis of the different research streams shows that brand equity concept is understood better if examined in a broader framework that assesses the incremental effect of the brand in the consumer’s choice process. Brand equity could play a role in how information is learned and retrieved and used in decisions and choice. This definition extends the aggregate conceptualization inherent in the additive brand impact notion of brand equity (i.e., enhanced attractiveness captured in the utility function) to a more comprehensive approach that focuses on the brands in the consumer choice process.

Although any specific sequential characterization (Lynch, Chakravarti and Mitra, 1991) of consumer choice processes is fundamentally limited, the elements belonging to a multi-staged and dynamic characterization of consumer choice is fairly general. Thus, product attributes arising out of perceived quality and brand awareness are selectively encoded and represented in consumer memory in a learning stage. These representations may also be selectively retrieved for subsequent use. Choice amongst the members of this set would depend on the specific decision rule invoked by the consumer.

Multi-attribute utility theory implies that the main building blocks in the consumer choice process are consumer perceptions about the product, i.e., the perceived quality and consumer taste arising out of their awareness (Erdem, et al, 1999). These building blocks are in fact the dimensions of brand equity that we have considered in our study.

**METHOD**

On the basis of definitions in the literature, we identified factors that can be affected by marketing mix elements and generated a pool of sample measures. Items were measured on a 5-point Likert scale, with anchors of 1 (strongly disagree) and 5 (strongly agree).
Category Selection

To test our hypotheses, we had selected the Indian passenger car industry. More specifically, samples were chosen from the consumers who had bought at least a second passenger car in the last six months. The category chosen was indeed a very interesting one. According to J D Power, only 37 per cent of the Indian car buyers are first-time buyers, compared to 80 per cent in China. Even this appears to be a skewed figure because a large chunk of this 37 per cent is from car owning households (Arvind Saxena, CEO Hyundai Motors India Limited, 2007). The trend is in fact turning stronger as the market matures as just 10 years ago, 50 per cent of the buyers in India were first-time car buyers (Mr. M Takedagawa, President and CEO of Honda Siel, in his interview in the Economic Times, 2007).

Sampling and Procedure

In line with the work by Desarbo and Manrai, 1992; Kirmani, Sood, and Bridges, 1999; and Park, Milberg and Lawson, 1991, we distinguish between three brand types for automobiles: premium, volume, and economy. Accordingly, we define prestige brands as brands which are priced > Rs. 9 lakh, volume brands as priced between Rs. 5-9 lakh, and economy brands priced less than Rs. 5 lakh. All the prices being considered are ex-showroom, New Delhi as on March 2008. This method of differentiation finds merit as the Society of Indian Automobile Association (SIAM) classifies passenger vehicle types along the same lines. The magazine, “Auto Car,” publishes the prices of all automobile models in all its issues. Its March 2008 issue was used as the reference for all our brand categorization.

It is projected that in 2011, 80 per cent of the cars sold in India would be in the economy range, 14 per cent in the volume range, and 6 per cent in the premium range (Global Insight, 7th Sept. 2007). Accordingly, we stratified our sample, wherein 80 per cent of our respondents were people whose last car purchased was economy brand, 14 per cent volume brand, and 6 per cent premium brand. The purpose of stratification was to ensure covering respondents across all price points.

As per the Department of Transport Ministry, Government of India, 2004, the states having the 10 largest population of passenger car vehicles excluding the taxi segment in India as on 2004, contributes to 78 per cent of the All-India vehicle population. Being the last published report from the Ministry of Transport, we have considered this report for stratifying the samples.

Post-stratification, a random sampling was done. The pre-test method was used to assess the clarity of the questions and the reliability of the measures of the variables with respect to the questionnaire. In November 2007, a total of 50 pre-test surveys were collected from a non-probability sample of Indian automobile owners across the six metros of the country. The six metros are Mumbai, Delhi, Chennai, Bangalore, Hyderabad, and Kolkata. The questionnaire was sent by email to the respondents, who then returned the completed questionnaire to the researchers by email. The respondents were asked to indicate if they had any difficulty understanding and answering the questions besides providing other related suggestions that could be used to improve the questionnaire. Based on their feedback, adjustments to the questionnaire items were made. Cronbach’s alpha and test for convergent validity (using the formula of Bagozzi and Baumgartner (1994)) were analysed for all the constructs, and items found to be unreliable were dropped. In summary, the questionnaire was improved on the basis of the findings of the pre-test.

The final research employed shopping centre intercept surveys to collect consumer information. Due to the lack of up-to-date telephone directories, mail and telephone surveys are not a desirable method to collect data in India. Shopping centres were selected based on a marketing investigation. The criteria to select the shopping centre were that it must have a footfall of over 1,000 per day and a parking capacity of 250 cars at any time. Respondents were selected from visitors in the shopping centre who were willing to complete the questionnaire while shopping. The study was conducted across 10 centres and in each of the centres, three shopping malls were chosen for the survey. A research agency, PROADVENT, having branches across five cities in India, was engaged for administering the survey. Interviews in each of the centres were conducted by two people from the research agency. Since the research was conducted in 10 centres, a total of 20 interviewers were employed and each of them was extensively trained for three days before the formal survey.

To randomize our samples in each shopping mall in every centre, every third person who had parked his/
her car between 3 pm and 9 pm on Friday, Saturday, and Sunday were contacted for interview. Since there were three shopping malls in each centre, interviews were carried out in a total of 30 spots across ten centres and a total of 1,932 consumers were contacted. While contacting the respondents, there was no discrimination by gender or age. A total of 644 consumers agreed to be a respondent. An incentive (a small gift) was offered with each questionnaire, but participation was entirely voluntary. Only one questionnaire was made with the respondents being asked the brand of automobile they had last purchased. On the basis of their answers, they were then stratified into economy, volume or prestige brand samples. A respondent could essentially complete only one questionnaire.

To be eligible for participation in the study, consumers had to meet three criteria. First, they should have bought more than one car; second, their last car purchased should be within the last six months; and third, the last car could not be a second hand car. Stratification of the respondents (basis their last car purchase) in line with vehicle population (premium, volume, and economy) was maintained. This reduced the number of sample size to 310, as per the state-wise and vehicle-wise skew shown in Table 2.

Table 2: No. of Interviews Targeted Pan India

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The items of the construct were developed from literature review and Cronbach alpha and test for convergent validity conducted (Refer to Tables 3A and 3B).

Table 3A: Cronbach Alpha of Construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>3</td>
<td>0.76</td>
</tr>
<tr>
<td>Store image</td>
<td>4</td>
<td>0.72</td>
</tr>
<tr>
<td>Distribution intensity</td>
<td>3</td>
<td>0.75</td>
</tr>
<tr>
<td>Celebrity endorsement</td>
<td>3</td>
<td>0.79</td>
</tr>
<tr>
<td>Advertising frequency</td>
<td>3</td>
<td>0.78</td>
</tr>
<tr>
<td>Price promotion</td>
<td>3</td>
<td>0.84</td>
</tr>
<tr>
<td>Non price promotion</td>
<td>3</td>
<td>0.92</td>
</tr>
<tr>
<td>Peer recommendation</td>
<td>3</td>
<td>0.89</td>
</tr>
<tr>
<td>Country of origin</td>
<td>3</td>
<td>0.77</td>
</tr>
<tr>
<td>Event sponsorship</td>
<td>4</td>
<td>0.89</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>Brand awareness</td>
<td>4</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Table 3B: Convergent Validity of Constructs

<table>
<thead>
<tr>
<th>Convergent Validity of Construct</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>0.6</td>
</tr>
<tr>
<td>Store image</td>
<td>0.5</td>
</tr>
<tr>
<td>Distribution intensity</td>
<td>0.51</td>
</tr>
<tr>
<td>Celebrity endorsement</td>
<td>0.6</td>
</tr>
<tr>
<td>Advertising frequency</td>
<td>0.7</td>
</tr>
<tr>
<td>Price promotion</td>
<td>0.59</td>
</tr>
<tr>
<td>Non-price promotion</td>
<td>0.56</td>
</tr>
<tr>
<td>Peer recommendation</td>
<td>0.51</td>
</tr>
<tr>
<td>Country of origin</td>
<td>0.65</td>
</tr>
<tr>
<td>Event sponsorship</td>
<td>0.58</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>0.82</td>
</tr>
<tr>
<td>Brand awareness</td>
<td>0.55</td>
</tr>
</tbody>
</table>

FINDINGS

Effect of Marketing Mix Elements on the Type of Car

To know the effect that the marketing mix elements have on the type of car, we plotted a histogram with outline and groups with the help of Minitab 14.0. The results of the same are shown in Figure 2.

Analysis of Marketing Mix Elements Influencing Dimensions of Brand Equity and Dimensions of Brand Equity Influencing Final Choice

We used Structural Equation Model (SEM) as the tool and SPSS 13.0 for our analysis. SEM is an extension of the general linear model (GLM) that enables researchers to test a set of regression equations simultaneously. The general form of SEM consists of two parts: the meas-
measurement model and the structural model. The measurement model specifies how the latent variables or the hypothetical constructs are measured in terms of the observed variables and describes the measurement properties. The structural equation model specifies the causal relationships among the latent variables and describes the causal effects and the amount of unexplained variance.

Hu and Bentle (1999) suggest that GFI, NFI, CFI, and RMR values above 0.90 and AGFI values above 0.80 are generally interpreted as representing a good fit, whereas a value of RMSEA below 0.10 indicates a good fit. Due to large samples, a significant Chi-square ($X^2$) does not indicate poor fit because the Chi-square is easily influenced by the size of the sample (unlike other criteria). In addition to the disadvantage of the Chi-square statistic, the ratio of Chi-square to its degree of freedom, $X^2/df$, is further used to indicate a good fit. It is suggested that a ratio of 3:1 or less indicates an adequate fit.

### Measurement Model Testing

CFA is particularly useful for testing a measurement model as it allows for correlated errors of measurement (Hair, et al., 1998). A measurement model was set to have 40 items comprising 12 constructs (latent variables) in this study. AMOS 5.0 maximum likelihood method was used to examine each construct and its standardized loadings.

### Standard Loading and the Squared Multiple Correlation

Bollen (1989) suggested that standard loading and squared multiple correlations between items and constructs should be used for measurement model testing. The analysis results for this study indicated that all 40 items were loaded highly on their corresponding construct ($p>0.05$ in all cases) and the $t$-values of those items were greater than 2.0 (Segars and Grover, 1993). The analysis of the squared multiple correlations demonstrated that, except for a few items, most of the items

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**Figure 2: Effect of Marketing Mix Elements on Type of Passenger Cars**

![Figure 2: Effect of Marketing Mix Elements on Type of Passenger Cars](image)
met the recommended criteria of 0.40 (Taylor and Todd, 1995). This means, overall, that the items shared substantial variance with their hypothesized constructs (see Table 4).

In terms of model fit, the test of the measurement model demonstrated that it had a good fit to the data. The data shown in Table 5A suggests that, except for Chi-square ($X^2$) and NFI, all other criteria met the recommended

### Table 4: Parameter Estimates for the Measurement Model

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Standardized Loadings</th>
<th>$T$ – values</th>
<th>Squared Multiple Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand price</td>
<td>Brand price 1</td>
<td>0.71 **</td>
<td>10.23</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Brand price 2</td>
<td>0.74 **</td>
<td>- 2</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>Brand price 3</td>
<td>0.76 **</td>
<td>- 2</td>
<td>0.61</td>
</tr>
<tr>
<td>Store image</td>
<td>Store image 1</td>
<td>0.65 **</td>
<td>8.04</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>Store image 2</td>
<td>0.55 **</td>
<td>- 2</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Store image 3</td>
<td>0.64**</td>
<td>- 2</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>Store image 4</td>
<td>0.48 **</td>
<td>- 2</td>
<td>0.38</td>
</tr>
<tr>
<td>Distribution intensity</td>
<td>Distribution intensity 1</td>
<td>0.61 **</td>
<td>- 2</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>Distribution intensity 2</td>
<td>0.67 **</td>
<td>5.3</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>Distribution intensity 3</td>
<td>0.46 **</td>
<td>- 2</td>
<td>0.3</td>
</tr>
<tr>
<td>Celebrity endorsement</td>
<td>Celebrity endorsement 1</td>
<td>0.72 **</td>
<td>16.54</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Celebrity endorsement 2</td>
<td>0.61**</td>
<td>- 2</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td>Celebrity endorsement 3</td>
<td>0.8 **</td>
<td>- 2</td>
<td>0.58</td>
</tr>
<tr>
<td>Advertising frequency</td>
<td>Advertising frequency 1</td>
<td>0.81 **</td>
<td>20.22</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>Advertising frequency 2</td>
<td>0.87 **</td>
<td>- 2</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Advertising frequency 3</td>
<td>0.77 **</td>
<td>- 2</td>
<td>0.76</td>
</tr>
<tr>
<td>Price promotion</td>
<td>Price promotion 1</td>
<td>0.79 **</td>
<td>8.54</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Price promotion 2</td>
<td>0.72 **</td>
<td>8.78</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Price promotion 3</td>
<td>0.78 **</td>
<td>- 2</td>
<td>0.58</td>
</tr>
<tr>
<td>Non-price promotion</td>
<td>Non-price promotion 1</td>
<td>0.69 **</td>
<td>- 2</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>Non-price promotion 2</td>
<td>0.77 **</td>
<td>- 2</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Non-price Promotion 3</td>
<td>0.64 **</td>
<td>- 2</td>
<td>0.55</td>
</tr>
<tr>
<td>Country-of-origin</td>
<td>Country of origin 1</td>
<td>0.72 **</td>
<td>20.9</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Country of origin 2</td>
<td>0.64**</td>
<td>- 2</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>Country of origin 3</td>
<td>0.8**</td>
<td>- 2</td>
<td>0.54</td>
</tr>
<tr>
<td>Word-of-Mouth</td>
<td>Word-of-mouth (WOM) 1</td>
<td>0.53 **</td>
<td>14.9</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth (WOM) 2</td>
<td>0.79 **</td>
<td>- 2</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>Word-of-mouth (WOM) 3</td>
<td>0.88**</td>
<td>- 2</td>
<td>0.76</td>
</tr>
<tr>
<td>Event sponsorship</td>
<td>Event sponsorship 1</td>
<td>0.77 **</td>
<td>15.33</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Event sponsorship 2</td>
<td>0.82 **</td>
<td>- 2</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>Event sponsorship 3</td>
<td>0.86 **</td>
<td>- 2</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>Event sponsorship 4</td>
<td>0.83 **</td>
<td>- 2</td>
<td>0.71</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>Perceived quality 1</td>
<td>0.78 **</td>
<td>16.63</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>Perceived quality 2</td>
<td>0.85 **</td>
<td>- 2</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Perceived quality 3</td>
<td>0.85 **</td>
<td>- 2</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Perceived quality 4</td>
<td>0.88 **</td>
<td>- 2</td>
<td>0.74</td>
</tr>
<tr>
<td>Brand awareness</td>
<td>Brand awareness 1</td>
<td>0.56 **</td>
<td>8.85</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>Brand awareness 2</td>
<td>0.63 **</td>
<td>- 2</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Brand awareness 3</td>
<td>0.58 **</td>
<td>- 2</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>Brand awareness 4</td>
<td>0.64 **</td>
<td>- 2</td>
<td>0.41</td>
</tr>
</tbody>
</table>

** indicates significant correlation at $t > 2.0$; - 2 means first path was set to 1, therefore, no SE’s or $t$-value are given.
values suggested by Hu and Bentle (1999). A Chi-square ($X^2$) value of 873.35 with a degree of freedom of 455 for the measurement model was found. The $p$ value was equal to 0.00, which did not meet the criteria for a fit model ($P \geq 0.05$). However, it was accepted that $X^2$ was not an appropriate criterion for a study that had a large sample size (Browne and Cudeck, 1993; Marsh, 1994), and that $X^2$ became more sensitive as the number of indicators rises (Hair, et al., 1998). This study had a fairly large sample size (302 valid respondents) and a large number of indicators, so $X^2$ was not an appropriate testing criterion for model fit for this study. NFI was also above than the recommended value of 0.90 (0.95).

Therefore, it could be articulated that the measurement model of this study had an acceptable level of fitness. Other fitness indices met the recommended minimum values as well (see Table 5B).

**Structural Model Testing**

Once the measurement model had been tested for suitability, the estimation of the structural model followed. A structural model was employed to examine the relations among the latent variables in the proposed model (Byrne, 1998). AMOS 5.0 Graphics was used to run the structural model and test the hypothesized relationship between constructs. Maximum likelihood estimation and correlation matrix were used to test the structural model. The structural model included all variables from the measurement model, since all of them had significant factor loadings. It specified the actual brand choice as exogenous variables, and they were related to the endogenous variables—perceived marketing efforts and brand equity dimensions.

The constructs and their hypothesized relations were tested simultaneously. The model fit criteria used in testing the measurement model were employed to test the structural model, and goodness-of-fit statistics indicated that the structural model revealed a satisfactory fit. A Chi-square ($X^2$) value of 36.94 with a degree of freedom of 11 for the measurement model was found in this study. The $p$ value of $X^2$ was equal to 0.00, which did not meet the criteria for a fit model ($p > 0.05$). However, this could be because of a large sample size and a large number of indicators in the study. All other fitness indices met the recommended values: Chi-square ($X^2$)/df of 2.36, GFI of 0.99, AGFI of 0.92, NFI of 0.99, CFI of 0.99, RMR of 0.02, and RMSEA of 0.06 (see Table 5B). Therefore, the structural model study showed an acceptable model fitness level.

**SUMMARY OF FINDINGS**

The histogram shows that for any economy, brand consumers price, distribution intensity, celebrity endorsement, event sponsorship, non-price promotion, WOM and country-of-origin of the brand are important parameters. For consumers of volume brands, advertisement frequency, event sponsorship, and non-price promotion are important, while for premium brand consumers, celebrity endorsement, non-price promotion are the
important marketing mix variables influencing their final choice.

H1 posited that brand price was a significant clue consumers used to evaluate brand quality. In this study, the path to perceived quality from brand price was positive. This result indicates that Indian consumers use brand price as an important cue in determining the quality of automobile brands. For them, expensive products mean higher quality. Thus, H1 was supported.

H2 argued that intensive distribution was likely to improve brand awareness. The results from this study supported this proposed relationship. That is, channel convenience provided by being closer to home/workplace in India could effectively increase their products’ popularity among the Indian consumers, since automobiles are regarded as a service-driven activity. People would thus want the dealers close by so that ‘help at hand’ is available.

H3A and H3B hypothesized that good store image was likely to increase brands’ perceived quality and brand awareness. The proposed relationships were supported by the results: perceived quality and brand awareness were influenced by store image. These results suggest that good store image of automobile dealers in India influence the perceived quality of the brand that the dealers carry. Also, the retailers’ brand equity can enhance the brand awareness based on the value the retailers provide to their customers (Srivastava and Shocker, 1991).

H4A and H4B postulated that advertising frequency was positively related to perceived quality and brand awareness. The results reveal that the relationship to perceived quality is not significant but the relationship to brand awareness is significant. This means that higher the advertisement frequency, more the brand awareness, though the perceived quality is not affected by the same. One possible reason for the same could be that cars are purchased after a period of time. Thus price promotion, offered by a brand, was more likely to be forgotten by the consumers, by the time he came for a repeat purchase. Again, since the respondents of our study are multiple-time automobile buyers who are expected to be in the higher income levels, price promotion as a cue, might not necessarily induce brand awareness. H5C argued that non-price promotion was likely to strengthen brand awareness. Results reveal that non-price promotion can significantly enhance brand awareness. Again the possible reason for the same could be that the respondents chosen are multiple-time automobile buyers, who see non-price promotions as gaining something extra without cheapening the product. Hence, they are more likely to concentrate on such deals.

H6A and H6B argued that perceived quality and brand awareness was more for a brand which had originated outside India. A path from country-of-origin to perceived quality showed that they were not related to each other. Again, this might be because the respondents are multiple time car buyers who have a fair knowledge owing to their earlier use experience on the merits and demerits of an Indian brand *vis-a-vis* the brands of foreign origin.

H7A and H7B posited that WOM would enhance both the perceived quality and brand awareness. The results support the hypotheses. The paths to WOM and perceived quality and brand awareness were also found to be positive. For the country level culture, India is still a collectivist society as a whole. People in collectivist societies such as India interdependently interpret advertising messages and make implicit or explicit joint product purchase decisions, conforming to in-group members’ dominant opinions and behaviour, thereby diluting the impact of advertising.

H8A and H8B postulated that celebrity endorsement was likely to increase a brand’s perceived quality and brand awareness. Positive paths were found to perceived quality and brand awareness from celebrity endorsement. That is, credible celebrity endorsers serve as a sign of high quality in Indian consumer’s minds, and can be used to generate more traffic to the brand. Simultaneously, the celebrity endorsement also increases the brand awareness for the brand.
H-9A and 9B hypothesized that event sponsorship was positively related to perceived quality and brand awareness. The path to perceived quality was found to be positive. However, the path to brand awareness from event sponsorship was found to be weaker and insignificant. That is, event sponsorship in India is not effective at promoting a sponsor’s brand and communicating brand personality to the audience.

Hypothesis 10 was formulated to determine whether significant relationships existed among brand equity dimensions in the Indian automobile market. The results indicate that the proposed relationships among brand equity dimensions, which were based mainly on the findings from studies conducted in the Western cultures, were supported in the Indian market also for the relationship studied.

Hypotheses H11A and H11B suggested that brand choice was related to both perceived quality and brand awareness. Again, the results of our study support the hypotheses. The paths to perceived quality and brand awareness from brand choice were found to be positive. Thus, it has been shown that the data in this study achieved acceptable levels of measurement reliability and validity, while the measurement model showed a good fit. Besides, the structural model demonstrated that 14 out of 19 proposed hypotheses in this study were supported with a good fit level.

MANAGERIAL IMPLICATIONS

One of the major findings of this study is that brand choice probability could be enhanced if dimensions of brand equity are enhanced. This study is also one of the first studies to analyse the factors affecting brand equity (and brand choice) for multiple-time consumers of a category. Yoo, Donthu and Lee’s (2000) brand equity creation model was expanded and tested in the Indian context. It was found that not all parameters affecting brand equity in the US have a significant impact in India. For example, advertisement frequency is not a very successful builder of brand equity in the Indian context, while price promotion has no effect on brand equity for such consumers. The study proves that brand managers need not go for event sponsorship if their objective is to increase brand awareness, but event sponsorship helps to increase perceived quality of a product. WOM is another marketing mix element that has been found to be impacting the dimensions of brand equity and ultimately final brand choice.Possibly, collectivistic culture of Indians are prevailing and making it a significant determinant of brand equity versus advertising frequency. The study has also given indication on the most effective marketing mix elements across car owners of different categories — premium, volume, and economy.

This study should serve as a guideline to the brand managers in automobiles and consumer goods industry, on the marketing mix elements that should be focused on to strengthen the dimensions of brand equity. For ultimately, increased brand equity means better choice probability for consumers, which can translate into an increase in sales.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Our study is limited by several factors that can be addressed in future research. First, our sample is limited geographically. Our hypothesis should be tested further in other countries to get a universal data. Again, the data we had collected were after repurchase had been made. So, the respondents might be biased towards the actual decision. Ideally, all the data gathered should have been on consumer’s perception and hence should have been prospects. However, as we interviewed consumers shortly after their repurchase, this bias should not be too problematic (Punj and Brookes, 2002). Third, we have collected cross-sectional data. Future research could collect longitudinal perceptual data and longitudinal switching data. Again, we use perceptual, not actual, measures of marketing mix variables. It would be meaningful from a managerial perspective to use hard marketing data from secondary sources, such as published survey reports. Perceived pricing efforts may create illusive reflections on brand equity, distinct from the actual pricing efforts. Again perceived advertising data might be different from what a brand is actually spending. Hence, we call on future research to examine the effects of actual marketing mix elements on brand equity.
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