The Impacts of Brand Love, Brand Equity in the Consumer’s Loyalty and the Customer’s Purchase Intentions: The Development and Testing of Alternative Models in the Automotive Sector

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ABSTRACT

The development of researches focused on Brand Equity and Brand Relationships with consumers are growing due to the importance of the theme in marketing performance. On the other hand, Brand Love is a new concept that is being explored recently, as a driving force to provide loyalty and purchase behavior. According to Medora et al. (2002), the systematic study of love was initiated in 1944, when Llewellyn Gross published one of the first romantic evaluation scales, and, from then on, a series of questionnaires on love began to appear. Despite the apparent overstatement of the concept, the new consumption society emphasizes emotional appeals into material goods and products. Brand Love is a powerful emotional experience that takes place in the postmodern scenario derived from hedonic responses making consumers more lovable to brands (HIRSCHMAN and HOLBROOK, 1982). Carroll and Ahuvia (2006) was deemed as the fundamental basis for this study, since the authors found that many consumers have intense emotional attachment towards some “loved objects”. They defined this intense emotion as the love directed for anything other that another person, suggesting fundamental similarities between interpersonal love and his consumer’s counterpart. The brand equity (or value) concept, in other point of view, refers to a set of resources and deficiencies, inherent to a brand, that aggregates or subtracts value of a product or service. The classical Keller (1998) model was revised as an concluding remark about Brand Equity subject, while Gonçalves and Souki (2007) model was added at other relevant perspectives (AAKER 2000, KELLER 1999, KAPFERER 2004), forming the basis for empirical research. Theory upon Consumer’s loyalty and customer’s purchase intentions also was revised from consumer behavior literature (SOLOMON, 2002; KARSAKLIAN, 2004; ENGEL et al., 2000 ; ZEITHAML, BERRY and PARASURAMAN, 1996). Two competing models was proposed based on the questioning about which variable should be taken as exogenous regarding the relation between Brand Equity and Brand Love. In order to verify the relationships between these constructs, a survey was operationalized with a sample of 314 respondents. After the measurements’ validation, a Modeling Structural Equation using ML was applied in order to test the models. The results revealed that Brand Love has a significant impact on Brand Equity. On the other hand, Brand Equity was able to explain 63% of Loyalty intentions and Loyalty could explain 86% of the consumers’ Purchase intentions. The contribution of this research is important as it tests a valid and reduced scale for Brand Love and proposes a scale to measure Brand Equity in the automotive sector. It also provides evidences of how these constructs are related to each order, underlying evidences of how Brand Equity and Brand Love must be strategically managed by marketing professionals.
1 INTRODUCTION

The Brazilian car industry sector is inserted in a globalized market, in which there has been a very high competition, in which the offers of products and services present increasing differentiation difficulties in terms of quality and efficiency. With the search for increasing innovation in the sector, the excess of options has made the consumer’s choices more and more emotional.

In this scenario, the brands try attract even more the consumer’s choice by aggregating value to the intangible characteristics of their products such as status, style, culture, technology, modernity, among others. According to Martins (1999), the purchase motivations are related to the needs, to the brand and to the individual’s desires, but the preference for a brand is aroused by images and feelings which are in the people collective unconscious.

Such a scenario leads to an increasing search for bonds between the consumer and the brands which go beyond the existing products and services to be deeply internalized in the consumers’ minds and hearts. In this sense, an instigating field of analysis emerges in the effort to understand how strong and lasting emotional bonds are structured in order to generate a superior brand value and brand preference. The literature has stated how the love to a brand can be a liable concept to be adapted to the marketing universe, and with an excellent possibility of obtaining success in the brand differentiation.

By observing the importance of the car industry sector in the economy, the relevance of the brand love theme, as well as the existing gaps in this field of study, the following research question was elaborated: Which are the consequences of the love for automobile brands and its impact on the consumers’ behavioral intentions?

In this sense, the present study aims to identify the behavioral consequences of love to automobile brands by its consumers, because emotional attributes may represent relevant differentials in such a competitive market. The work was initiated with the definition of the theme and the identification of the objectives to be achieved, following a literature revision which sustained the conceived theoretical model. Finally, in light of the theory, an assessment with 314 automobile owners living in a Brazilian capital was performed. The data allowed to test of the theoretical model which sustained the strong relation between Brand Love and Value and the important effect of these variables on the loyalty of the consumers’ purchase intention.

2 THEORETICAL REVIEW

The revision of the literature takes us to the study’s central aspects, which were analyzed with the objective of sustaining the hypotheses that were conceived in the empirical study. The central axes of this study were the concept of brand love and the concepts of loyalty and behavioral intentions.

2.1 Concept of Brand Love

The conceptions on love are of extreme importance for an organization of various cultures and societies because they implicitly define what is appropriate and desirable in the relationships between individuals (BEALL and STERNBERG, 1995).

According to Myers and Shurts (2002), even though love has served as a source of innumerable writings of different precedence (such as literature and philosophy), up to the 70s there was an absence of scientific validity in its study, considering that it would be all too mysterious and intangible for studies of scientific nature. The difficulty in observing it in a rigorous and systematic manner served for decades as the main reason for it to be named as
non-scientific by the researchers (FELDMAN, 1985). For this reason, its introduction as a scientific object in the social and human sciences was relatively late.

According to Medora et al. (2002), the systematic study of love was initiated in 1944, when Llewellyn Gross published one of the first romantic evaluation scales, and, from then on, a series of questionnaires on love began to appear. For Hunt (1963), the Greeks were the ones who created the word love; they were the first to create a form of explaining this feeling, separating love between flesh and spirit. In Classical Greece, love was considered to be a purpose of life, a simple distraction. Today, there has been a great change in the concept of love, propitiated by the separation of the Church’s and the State’s power, where love becomes a base structure for the conception of family.

In a market context, the definition of the concept of love has been going beyond the sphere of interpersonal relationships in order to explain the way people relate to brands and consumption objects. In this point, the characteristics traditionally attributed to love, such as its impetuous desire, elevated emotional load and repressed rational action may be translated into the forms in which some consumers react facing their favorite brands.

In this sense, psychology emerges as the source to understand the different phenomena and events related to brand Love, seeking basis especially for that which is named Love Psychology.

Bowlby (1969) suggests that the degree of emotional relationship in relation to an object, foresees the nature of an individual’s interaction with this object. For example, the individuals who have strong bonds towards a person are more inclined to make sacrifices in favor of this person. Making an analogy, the emotional relationships of the consumers with a brand may generate a higher commitment in relation to the brand (loyalty, for example), as well as generating an inclination towards making financial sacrifices to obtain a product.

In a first moment, the expression “Brand Love” may seem like an exaggeration. However, the new consumption society has been more and more attached to material goods in order to justify its attitudes and behaviors. The corporations have already perceived that and have been putting more and more emotional appeal into the sale strategy of their products.

Love is a powerful emotional experience, and the researches performed in the Love Psychology studies demonstrate the importance of intensity in the influence of interpersonal love (LEE, 1977, 1988; STERNBERG, 1996, HENDRICK and HENDRICK, 1989; HATFIELD and RAPSON, 1996). In this sense, products with a defined hedonist component, that is, those that generate fun, pleasure or appreciation present preliminary benefits that tend to generate stronger emotional responses, making the consumers consider them to be more lovable (HIRSCHMAN and HOLBROOK, 1982). The authors define as “variable hedonist product”, as the consumer’s perception of the relative role of the hedonist benefits offered by the product’s category.

The consumers’ love for possession or particular activities was extensively observed, but the suggestions that the consumers have feelings towards a brand come mainly from researches on pleasure, love and the consumers’ relationship with brands. When these feelings cannot be perfectly analogous to the feelings which a person has towards another, the conclusion is that they may be considerably more intense than a simple “liking” (AHUVIA, 1992).

The relationship between consumers and the objects are typically unidirectional. The consumer may sense a strong fondness and restlessness towards the object of consumption, but the object cannot return the love and, even less, initiate a relationship. However, the similarities are enough to allow significant analogies. The logic of the consumers’ relationship applies to all classes of relations between the consumers and consumption, relations with products, types, stores, advertisement and so on.
Oliver et al. (1997) conceives pleasure as a distinct response of the consumer to a non-confirmation model of satisfying expectations that derive from a surprise, stimulation and from a positive influence.

Shimp and Thomas (1988) open paths to love in consumption with their “consumer of loved objects” model based on analogies with the triangular love theory of Sternberg (1996). These authors suggest that the nature of a consumer’s relationship with an object (a brand, for example) is based on three components: liking, desire and decision/compromise. The presence or absence of a crossing between these three dimensions lead Shrimp and Thomas (1988) to identify eight possible consumer’s relationships: not liking, liking, passion, functionalism, inhibited desire, utilitarianism, succumbed desire and loyalty.

In this context, brand love is defined as the degree of attachment which the emotional love of a satisfied consumer has towards a product, establishment or brand (Ahuvia, 2005). The brand love includes the passion in relation to the brand, attachment to the brand, the positive evaluation of the brand, positive emotions in response to the brand, and declarations of love to a brand. However, the authors recognize that consumers tend to talk “loosely” when using the word love with references to this category. As such, many examples of brand love will not be fully analogous towards the stronger forms of interpersonal love (AHUVIA, 1992; 2005; OLIVER, 1999; SHIMP and THOMAS, 1988).

Based on these theories Carroll and Ahuvia (2006) performed an empirical research that studies in details the consumers’ ability to love products or consumption activities. The authors found that many consumers have intense emotional attachment towards some “loved objects”, which they defined broadly as anything other than another person (for example, playing a musical instrument, a pet, a computer, a painting, an old car which is a “travel companion”, books, among others”. The authors’ paper suggests that there are fundamental similarities between interpersonal love and love in the consumer’s contexts. Such theory receives additional support from the studies recently carried out by Whang, Sahourym and Zhang (2004) and Thomson, Maclnnis and Park (2005).

Carroll and Ahuvia (2006) propose a model (FIG. 1) which relates the construct Brand love to other concepts: product hedonism, brand self-expressiveness, brand loyalty and positive word-of-mouth. The authors built hypotheses that product hedonism and brand self-expressiveness are antecedents of brand love. On the other hand, as consequences, the authors named (conative) brand loyalty and positive word-of-mouth; also it was assumed that product hedonism, if directly related to loyalty without the brand love’s moderation, has a negative effect over it, differently from the direct relation between brand self-expressiveness and positive word-of-mouth, where a positive direct relation was assumed.

![Diagram](https://via.placeholder.com/150)

**Figure 1: Final model relating the Brand Love construct to other concepts.**
Source: Carroll and Ahuvia (2006).
Carroll and Ahuvia’s (2006) studies give the empirical support for the usefulness of the brand love’s construction, in order to consider differences in the emotional responses of consumers’ satisfaction towards brands, showing itself as a significant form of consumer’s satisfaction. This shows that brand love can be strategic in the development of strong emotional relationships with consumers.

The results of this study suggest that the more products are hedonist and/or the self-expressive brands, they have the tendency of being more loved. As consequences, the authors point out the (conative) brand loyalty and positive word-of-mouth. It was also assumed that product hedonism, if directly related to loyalty without the brand love’s moderation, has a negative effect over it, differently from the direct relation between brand self-expressiveness and positive word-of-mouth, where a positive direct relation was assumed.

The consumers’ love must be bigger in relation to the brands that worry about their identities, defining these brands as the ones which self-express the specific social (social self) and interpersonal desires of the human beings (internal self).

It is necessary, then, to explain the social self and internal self concept that the authors work with. The social self is defined as “how an individual believes that the others see him” (GOODE, 1959). Such authors also highlight the existence of the ideal social self, defining it as “how an individual would like the others to see him”. In relation to the internal self, the same authors point out that it is divided in real self and ideal self: the first is stated as being the form “in which an individual, in fact, sees himself”; the second is quoted as being the manner “in which an individual would like to see himself”.

In this sense, it is believed that consumers like to consume products that have images which are compatible with the ones which they would like to represent, aiming to give them an overlay (IBRAHIM e NAJJAR, 2007).

The conceptual model created by Santana and Akel Sobrinho (2008) in which the authors also consider that the Brand Love construct can explain a great part of the sports fan/consumer behavior, being that in this field, the affectivity between the individual and the loved object (sports entity) is visible. With this objective, the authors created a theoretical model that shows the relation between the love to a brand and other pertaining constructs: hedonism, brand self-expressiveness, satisfaction, attitudinal and behavioral loyalty, loyalty and love to multiple brands and positive word-of-mouth communication.

Fournier (1988) also noted the relevance of love in long term relationships between consumers and brands. Furthermore, Fournier and Mick (1999) examining the several forms of consumer’s satisfaction, suggest that “satisfaction as love probably constitutes the most intense and deep satisfaction of all”.

Brand love is defined as the degree of attachment that a satisfied consumer’s loving emotion has towards a given brand (commercial establishment, products, etc.). According to Carroll and Ahuvia (2005b), brand love includes passion in relation to the brand, attachment to the brand, positive evaluation of the brand, positive emotions in response to the brand, and declarations of love to a brand. However, it is recognized that consumers tend to inhibit themselves when using the word when referring to objects or brands.

Brand love and brand satisfaction are different constructs. Being coherent with Fournier and Mick’s (1999) thoughts, brand love is conceived as a form of satisfaction, that is, a response experimented by some, but not from all satisfied consumers. Brand love differs in many ways from the broader concept of satisfaction. First, when satisfaction is generally conceived as a cognitive judgment, brand love has a much stronger affective focus. Second, being that satisfaction is typically considered to be a specific result of the transaction, while brand love is many times the result of a long-term relationship between a consumer and the brand. Third, while satisfaction is frequently connected to the paradigm of expectation confirmation, brand love does demand neither expectations nor confirmation. The authors
have concluded that brand love includes a willingness to declare this love, “I love this brand!” and involves the integration of the brand in the consumer identity. It is possible to imagine a soccer fan that is extremely unsatisfied with his team’s performance and, even so, deeply loves it. On the other hand, a consumer may be greatly satisfied with an automobile and even then does not present a relationship of love with the brand that produces it.

Love for brands is different from the simple influence of the brands, that is, “I like this brand”. The support for this idea comes from the exhibition of the researches, in which interpersonal love is not merely a more intense form of interpersonal taste, but also of the distinct conceptual and empirical construction, Sternberg and Barnes (1988). Similarly, brand love is not only a more intense emotional response than liking, but equal and conceptually distinct. First, it involves the brand’s integration with the consumer’s identity; such assimilation does not need to occur in the simple influence of a brand. Secondly, since brand love is conceived as a form of satisfaction, its lowest limit is simply defined as the absence of this emotional response. It is characterized by the consumer which is satisfied in a cognitive level, but does not have “any particular feelings” towards the referred brand. Consequently, brand love may cause impossible negative feelings towards the brand (for example: “not liking” or “feeling hate”).

2.2 Brand Equity

The idea pertaining brands as one of the most valued firm assets is increasingly present in organizational speech (KELLER, 2003). The well known brand associations and promotion raised from strong brand equity could be considered as a competitive advantage since it is difficult to copy from other competitors.

According to the American Marketing Association, brand is a name, symbol or figure or a combination of these elements which has the intention of identifying a product and service of a seller and to differentiate them from the other competitors. It is also important to point out that a brand is composed of tangible and intangible elements. Usually the intangible elements are the most relevant when developing a strong brand, since for these level of attributes the benefits arise directly from the consumers’ minds, revealing their deepest beliefs that cannot be directly copied or transferred to other firms (KELLER, 2003).

Brand equity is a term usually used to refer to the intangible assets that are attached to the brand and that increase the perceived benefits and value of a product or service far beyond from those due only to the offer itself (KELLER, 2003). Since this concept seems to be important in the contemporary marketing concept, a great amount of research was undertaken in the last decades with the objective of identifying the antecedents and outcomes of brand equity.

The brand equity (or value), from the consumer’s point of view is, according to Aaker (1995), a set of resources and deficiencies, inherent to a brand, that aggregates or subtracts value of a product or service. Classical models on measuring brand equity can be found in Keller (1998) that does an important theoretical revision about the subject. According to the author, the equity’s value based on the client can be obtained when the clients react positively (or negatively) to the marketing stimulation of a brand, better than when stimulated by a product without a brand or with a fictitious brand. This study, according to relevant literature (AAKER 2000, KELLER 1999, KAPFERRER 2004), utilizes in an equivalent form, the terms of brand equitableness, brand equity and brand equity for the consumer.

The managing process of a brand involves, according to Aaker (1995), a strategic analysis of the brand, the identity definition, the identity implementation and control. The measuring of the brand’s value is considered by the author a managing tool, not only in the analysis stage, but also in the controlling stage of the brand’s managing process.
In an automobile context, Hsieh (2002) presents a study that was carried out in 20 countries and 70 regions, with 4,320 automobile owners, evaluating the image of 53 brands in the period of September to October of 1997. The author started initially with an exploratory survey with focus groups using qualitative techniques, such as free-association and projective tasks, which were administrated with the objective of generating free deduction. The participants pointed out the desire and the importance of several attributes, and 14 of the mentioned benefit associations were selected by the majority as important convictions about cars.

The dimensionality of the brand’s equity was explored through a global sample using surveys, which included 20 countries. The respondents evaluated brands they were aware of, each of which had 14 attributes. According to Hsieh’s (2002) survey, there are three major first-order image dimensions underlying brand association: (1) The economic dimension (including good fuel economy, good dealer service, (2) the symbolic dimension (including prestigious, and luxury features; (3) The sensory dimension (including exciting, good acceleration and speed, fun to drive, and sporty), and (4) The utilitarian dimension (including made to last, and safe in accidents).

Vasquez, Del Rio and Iglesias (2002) developed and validated a measuring instrument for brand equity based on consumers. The research was made in the sport shoes sector (sneakers). These authors developed a measuring instrument for the brand’s utilities acquired by the consumer after purchasing the product. According to Vasquez, Del Rio and Iglesias (2002), the brand equity based on consumer is associated to the use and consumption of the brand, including those that involve functional and symbolic utilities. In the survey, the authors considered the product’s attributes, the tangible aspects and the brand’s name attributes with regards to the brand’s name associated to the product by the consumers, in the following dimensions:

1st Functional utility associated with the product: utilities directly linked with the tangible attributes of the offer that satisfies the necessities of the consumer’s physical environment, as for example: comfort, resistance and performance.

2nd Symbolic utility associated with the brand: utilities obtained by the tangible offer’s characteristics that respond to the necessities of the psychological and social environment, for example: style, color, artistic design.

3rd Functional utility associated to the brand: utilities which cover the individual’s functional or practical necessities, for example: guarantee, in spite of some of them may be associated with some tangible attributes (for example: durability of a brand’s vehicles). The consumer values these utilities thanks to the products identification with a certain brand’s name.

4th Symbolic utility associated with the brand’s name: opposite to the other utilities, it provides the necessities related to the psychological and social environment, for example: communicate to others the desirable impressions about oneself and to help the individual to live and promote his self-esteem.

Vasquez, Del Rio and Iglesias (2002) tested a structural model with these four factors, which was validated through confirmatory factorial analyses. One survey was applied in a way to provide data for the evaluation, the authors having discovered significant statistic impacts of the brand equity factors in the consumers’ recommendations and intentions in paying the prize prices for the products.

Keller (2001) proposed a model for Building Consumer Based Brand Equity. A list of measures was proposed, including the following dimensions: Salience, Performance, Imagery, Judgments (Quality, Credibility, Consideration and Superiority), Feelings and Resonance
(Loyalty and Attachment). Most of these factors are related to Brand Equity and some researchers applied Keller’s model in empirical research, to develop a Brand Equity Scale. Gonçalves and Souki (2007) conducted a research with respondents in Brazil, in order to identify and develop a brand equity scale in the automobile sector. They found 3 factors in this study: Economical, Emotional/Hedonic and Tangibles. These authors also tested a structural model, and verified a significant impact of all the three dimensions on Brand Equity, and a standardized weight of 0.41 of brand equity on buying intention. The model is exhibited at Figure 2:

![Figure 2: Brand Equity Model and Purchasing Intention](source)

The model was tested using SEM, with 2 samples (one of 360 and other with 393 questionnaires). All the 3 dimensions have adequate psychometric properties, including reliability and validity. These dimensions were used to guide the elaboration of the brand equity scale used in this study.

### 2.3 Behavioral Intentions

Bromley (2002) proposes a vision maintained by psychology and relates reputation with the perceptions and attitudes of different groups of interest, or stakeholders, facing the organizations and the attributes of its products and services. Defined, in the compendium of consumer behavior, as a lasting and general evaluation of a trademark, product, service, company, institution etc., attitude possesses a cognitive component, which is the beliefs of a person about the evaluated object, and an affectionate component, the feelings about the same object. For Katz (apud SHETH et al., 2008; SOLOMON, 2002; KARSAKLIAN, 2004), the attitudes present functions that facilitate social behavior, as it reflects a favorable or unfavorable orientation regarding an object, expresses the central values of a person, protects the individuals against external threats or internal feelings and give coherence to ambiguous or new stimulus. When an attitude is assumed, positive or negative, it generates a behavioral intention, which will be able to result in the behavior per se, favorable or not to the object (ENGEL et al., 2000).

Zeithaml, Berry and Parasuraman (1996), in a compilation of several articles, raised a series of behavioral intention indicators, whether favorable or unfavorable, that according to what was demonstrated derives from evaluations of positive or negative attitudes. The favorable intentions include speaking well of the company, recommending its products or service to other people, paying premium prices for its products and services, and remaining loyal to the company. On the other hand, when the intention is directed to an unfavorable behavior, it can be expressed by the retreat of the unconditional support to the company, the reduction in business occasionally carried out with the organization, complains to the
company itself or to other people or by actions next to other institutions, as judicial trials and reports to the press or supervising entities. In this study, two types of behavioral intentions were studied.

3 MODELS DEVELOPMENT

Literature is rich in assignments of the relevance of the brand equity as a source of benefits aimed to fulfill consumer needs and desires. It is also remarkable the importance of Brand Love in the construction of strong consumer links with a firm. These two constructs are advised as crucial in development of behavioral intentions necessary to firm competitiveness. Nevertheless, the literature does not seem clear when stating what the relationship between brand equity and brand love is. Given the psychological nature of the constructs, an answer about which constructs seem to be an antecedent of the other, in a nomological network, seems to be a difficult effort.

Some could argue that brand equity as more directly related to attributes and that the benefits are necessary to guarantee the development of a strong affective appraisal by the consumer. If so, brand equity should be a necessary condition for developing brand love. Another could argue that as long as brand love is more emotional and instinctive by nature, it should precede the development of more cognitive and conscious brand attachments. If this is true, then brand love rises as predictor of brand equity. Moreover, whatever case is true, brand equity and brand love should be strong antecedents of behavioral outcomes as loyalty and buying intention. Considering these two confronting alternatives, this study proposes two competing models for analyzing these phenomena, as stated by the two rival theoretical models. The models proposed are exhibited in Figure 3:

Figure 3: Alternate models of Brand Equity and Brand Love.
Source: Developed by the authors.
4 - RESEARCH DESIGN

In this section the methods conceived for the study are described and statistical results of the models are expressed.

4.1 - Data Collection.

In order to test the model, data were collected from a quota sample of automobile owner’s in a major Brazilian city. Potential respondents were asked to fill in a self explained survey containing the pertaining love, value, and loyalty scales. Owners were selected in the entrance of popular car shopping, parking zones and streets in general. The research quotas were established by equating the number of respondents in the sample to the market share of car brands in the city studied and the owner gender. By the end of one month of research effort, 314 valid questionnaires were returned.

4.2 Measurement.

The variables were measured by a Likert scale of eleven points. The anchors of the standard scale are labeled from “Strongly Disagree” (0) to “Strongly Agree” (10). Such extension ensured greater sensitivity and comparability with other scales (Dawes, 2008) and increased the confidence in the scales’ interval properties. The Brand Love scale was adapted from previous studies of the Brazilian version of the Triangular Love Scale (Sternberg, 1995, 1998) and the reduced scale proposed by Cassep-Borges and Teodoro (2007). The Loyalty scale was adapted from Zeithaml, Berry and Parassuraman (1996) and Purchase Intention scale was adapted from Dodds, Monroe and Grewal (1991). Brand equity items was adapted from Keller (2001), Vasquez, Del Rio and Iglesias (2002), Gonçalves and Souki (2007), Hsieh (2002) and other relevant perspectives (AAKER 2000, KELLER 1999, KAPFERRER 2004), forming the basis full items used in the study.

5 - DATA ANALYSIS

5.1 Sample Characteristics.

The respondents in the study were almost equally distributed by gender, since 57% were male. The men’s age was 33.00 years (S=11.67) and approximately 48% of the sample were single (46% were married). About 60% of the sample had no children and 33% had one or two children. When asked about car ownership, 67% answer that they had only one automobile, whereas 24% had two automobiles. Since quota sample was applied the distribution of cars brands in the sample was very close to the market share in the studied city.

5.2 Preliminary Data Analysis.

It was possible to detect that 210 answers were missing values, representing 0.92% of the total (210 / [314 x 73]). After excluding missing values; missing data were imputed with the regression procedure, since missing completely at random test results showed no noticeable patterns of missing data. Normality was assessed by normal parameters (Skewness and Kurtosis) and Komogorov-Smirnov’s tests. Despite the fact that almost all variables showed significant deviation from normality, the departures were moderated since absolute values of skewness and kurtosis was almost less than 1.

To identify univariate outliers the standard Z scores were calculated and 27 answers with $|Z| > 2.58$ were replaced by non-offending values, as suggested by Kline (1998). For the
multivariate outliers, detected by the 0.1% percentile of the Mahalanobis distance, the preference was to keep the cases in the database since only 24 outliers were found. At least, the tests for relative variance, linearity and multicollinearity showed no additional problems in the data.

Exploratory factor analysis using principal components extraction tested the dimensionality of the scales. The decision rule of eigenvalue greater than one was used for deciding the number of factors extracted. Addition scree plot analysis serves as a basis of comparison of the number of factor extracted. Value scales were divided in five sub-dimensions, and after item exclusions and oblique rotation (direct oblimin), they were interpreted as different facets of value. The results of the EFA are presented in the Table 1:

### Table 1 – Factor Loading of Exploratory Factor Analysis: Brand equity

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q67 A person that owns this brand of car humiliates the simpler ones</td>
<td>0.896</td>
</tr>
<tr>
<td>Q65 A person that owns this brand of car has more power over others</td>
<td>0.883</td>
</tr>
<tr>
<td>Q66 The person that owns this brand of car feels superior</td>
<td>0.802</td>
</tr>
<tr>
<td>Q68 A person that owns this brand of car feels like being part of a group that have the same values, behaviors and ideas</td>
<td>0.786</td>
</tr>
<tr>
<td>Q69 A person that owns this brand of car is less rejected in the social and commercial relationships</td>
<td>0.785</td>
</tr>
<tr>
<td>Q61 A person that owns this brand of car can get more friends or girl (boy) friends</td>
<td>0.776</td>
</tr>
<tr>
<td>Q60 People that own this brand of car is more opened to friendship</td>
<td>0.720</td>
</tr>
<tr>
<td>Q52 The owners of this brand of car are generally sexy and attractive</td>
<td>0.453</td>
</tr>
<tr>
<td>Q54 This brand of car positively impresses a person of the opposite sex</td>
<td>0.820</td>
</tr>
<tr>
<td>Q38 This brand is superior, of higher quality</td>
<td>0.770</td>
</tr>
<tr>
<td>Q42 This brand imposes respect</td>
<td>0.769</td>
</tr>
<tr>
<td>Q51 This brand of car brings pleasure to the person that owns and drives it</td>
<td>0.731</td>
</tr>
<tr>
<td>Q31 This brand is innovative, and launches trends in the market</td>
<td>0.659</td>
</tr>
<tr>
<td>Q50 This brand of car brings joy to its owner</td>
<td>0.656</td>
</tr>
<tr>
<td>Q43 This brand is used by successful people</td>
<td>0.651</td>
</tr>
<tr>
<td>Q46 This brand of car brings satisfaction to its owners</td>
<td>0.650</td>
</tr>
<tr>
<td>Q40 This brand is used by people that understand about automobiles</td>
<td>0.605</td>
</tr>
<tr>
<td>Q39 This brand gives status and prestige to whoever uses it</td>
<td>0.565</td>
</tr>
<tr>
<td>Q56 The risks in buying this brand of car is low</td>
<td>0.936</td>
</tr>
<tr>
<td>Q57 People who buy this brand of car do not regret it</td>
<td>0.817</td>
</tr>
<tr>
<td>Q59 This brand of car is safe</td>
<td>0.725</td>
</tr>
<tr>
<td>Q55 People are not afraid of buying this brand ofcar</td>
<td>0.634</td>
</tr>
<tr>
<td>Q64 This brand of car’s car fulfills my family’s needs</td>
<td>0.629</td>
</tr>
<tr>
<td>Q35 I personally identify myself with this brand</td>
<td>0.890</td>
</tr>
<tr>
<td>Q37 This brand is akin to my lifestyle</td>
<td>0.779</td>
</tr>
<tr>
<td>Q34 This brand is associated with the happy moments of my life story</td>
<td>0.729</td>
</tr>
<tr>
<td>Q36 I believe in the values of this brand</td>
<td>0.717</td>
</tr>
<tr>
<td>Q45 Having and using this brand’s products generates positive emotions</td>
<td>0.522</td>
</tr>
<tr>
<td>Q32 I feel good by choosing and using products of this brand</td>
<td>0.468</td>
</tr>
<tr>
<td>Q29 This brand is the market leader</td>
<td>0.727</td>
</tr>
<tr>
<td>Q28 This brand is the reference in the automobile market at global level</td>
<td>0.533</td>
</tr>
</tbody>
</table>

Source: research data. Notes: KMO measures of sample adequacy 0.935. The loadings in the table are greater than the cutoff of 0.400.
The factors extracted from the Brand Equity scale are named as follows: Factor 1) Relationships and Power; Factor 2) Hedonic and Emotional; Factor 3) Reliability Benefits; Factor 4) Identification and Affinity and ; Factor 5) Authority and Leadership. A Confirmatory factor analysis of the Brand Equity scale was done, and it is exhibited in Figure 4:

Figure 4: Brand Equity Dimensions. Confirmatory Factorial Analysis using Amos/ML. Standardized weights.
Source: data analysis.

As we can verify in Figure 4, Hedonic/Emotional elements have a huge impact on Brand Equity, and is the most important factor. Reliability, Identification and Authority have similar weights, in the range of 0.71-0.77. Relationship and power has the smallest weigh (0.41). These results area very interesting, as hedonic / emotional has the most significant impact, and, is possibly the driver of brand equity in the sample researched.

For the other constructs that were considered in the study (Purchase Intention, Loyalty and Brand Love), Exploratory Factor Analysis reveals one dimensional solution and the scales were deemed as unidimensional. Cronbach alpha and Composite Reliability reveals good scale internal consistency for the factors since almost all indexes were grater than 0.800 (Netemeyer et al 2003). Only one dimension of value has reliability indexes lesser than the preceding cutoff ($\alpha = 0.75$).

Fornell and Lacker (1981) framework was used to test the construct’s validity with structural equation modeling (maximum likelihood estimation). In order to test its convergent validity, it was compared with the reliability of individual items with the 50% cutoff suggested, and after few item exclusions, all the retaining items had more variance shared with the respective construct. All the Average Variance Extracted was greater than 50%, which pointed to a good convergence of these constructs and items.

In order to evaluate discriminant validity, the average variance extracted was compared to the squared correlation coefficient between the latent constructs. In terms of average variance extracted and composite reliability, the scales measurement presented results above the minimum required. Two exceptions occurred for the fourth dimension of Value and Love scales and intention to buy and loyalty. To test discriminant validity of these constructs the procedure recommended by Bagozzi et al. (1991) was undertaken.

The strategy was to test two competing models for these pairs of constructs in the model. In the first model correlation between constructs were fixed to unity (1) pertaining the assumption that the pair of constructs items measure exactly the same concept. In the second
model correlation was estimated freely. Since these models are nested, it could be applied a chi-square difference test to look for statistical differences between them. If the chi-square difference is greater than 3.84, it is possible to ensure that the model defining the constructs as different but correlated concepts is better than the one dimension solution. The results support discriminant validity of the measures since the chi-square differences are greater than 3.84 between the pairs of constructs previously stated.

### Table 2: Correlation matrix, squared correlations and reliability

<table>
<thead>
<tr>
<th>CONSTRUCT</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Love</td>
<td>1</td>
<td>0.64</td>
<td>0.50</td>
<td>0.57</td>
<td>0.27</td>
<td>0.82</td>
<td>0.33</td>
<td>0.66</td>
<td>0.58</td>
</tr>
<tr>
<td>Brand Equity (F1)</td>
<td>2</td>
<td>0.25</td>
<td>0.64</td>
<td>0.36</td>
<td>0.14</td>
<td>0.37</td>
<td>0.21</td>
<td>0.33</td>
<td>0.29</td>
</tr>
<tr>
<td>Brand Equity (F2)</td>
<td>3</td>
<td>0.32</td>
<td>0.13</td>
<td>0.59</td>
<td>0.74</td>
<td>0.74</td>
<td>0.73</td>
<td>0.67</td>
<td>0.58</td>
</tr>
<tr>
<td>Brand equity (F3)</td>
<td>4</td>
<td>0.07</td>
<td>0.02</td>
<td>0.55</td>
<td>0.63</td>
<td>0.53</td>
<td>0.63</td>
<td>0.55</td>
<td>0.48</td>
</tr>
<tr>
<td>Brand Equity (F4)</td>
<td>5</td>
<td>0.67</td>
<td>0.14</td>
<td>0.55</td>
<td>0.28</td>
<td>0.61</td>
<td>0.51</td>
<td>0.74</td>
<td>0.68</td>
</tr>
<tr>
<td>Brand Equity (F5)</td>
<td>6</td>
<td>0.11</td>
<td>0.04</td>
<td>0.53</td>
<td>0.40</td>
<td>0.26</td>
<td>0.61</td>
<td>0.47</td>
<td>0.40</td>
</tr>
<tr>
<td>Loyalty</td>
<td>7</td>
<td>0.44</td>
<td>0.11</td>
<td>0.45</td>
<td>0.30</td>
<td>0.55</td>
<td>0.22</td>
<td>0.61</td>
<td>0.94</td>
</tr>
<tr>
<td>Buying intention</td>
<td>8</td>
<td>0.34</td>
<td>0.08</td>
<td>0.34</td>
<td>0.23</td>
<td>0.46</td>
<td>0.16</td>
<td>0.88</td>
<td>0.78</td>
</tr>
<tr>
<td>CR</td>
<td></td>
<td>0.95</td>
<td>0.90</td>
<td>0.88</td>
<td>0.89</td>
<td>0.86</td>
<td>0.76</td>
<td>0.83</td>
<td>0.87</td>
</tr>
<tr>
<td>ALPHA</td>
<td></td>
<td>0.98</td>
<td>0.92</td>
<td>0.92</td>
<td>0.91</td>
<td>0.89</td>
<td>0.75</td>
<td>0.79</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Note: correlations are above the diagonal, squared correlations ($r^2$) are under the diagonal; average variance extracted is in the main diagonal.

The correlation matrix in Table 2 provides an initial inspection of the relationship between variables in this study. The correlations values range from .14 to .94. After ensuring the convergent and discriminant validity of the measures, the full structural model was tested. Brand equity was defined as a second order reflexive construct with five dimensions. The models tested are presented in the following figure:

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**Figure 5: Maximum Likelihood results from the models**

Notes: the values represent standardized weights for the structural equations (beta). ***p<.001. The $R^2$ (Squared Multiple Correlations) indicates the amount of variance of the endogenous constructs explained by the Structural Equations; no correlations/modifications among errors were used. Source: research data.

Model estimates shown acceptable nomological validity for both models. Model 1 that uses brand equity as antecedent of brand love reveals smaller regression weights than model 2. The
fit of the models also points out that model 2 seems to be close to explaining the variables relationships than model 1. In the second model, Brand love explains about 59% of the variance in Brand equity whereas, in model 1, only 54% of the variance of brand love was explained. Also in model 2, Brand equity shows great impact on loyalty, explaining 63% of this construct. In the model 1 only 43% of loyalty could be explained by brand love. Finally in both models loyalty explains more than 80% of the variance of purchase intention. The results showed moderate fit for both models. Indexes like IFI, CFI and TLI are close to the suggested level of 0.90. RMSEA is inferior to 0.08 and $\chi^2$/d.f. is below the suggested level of 3.00. All the preceding results suggest that both models represent acceptable levels of adjustment. Nevertheless, the fit of model 2 seems to be superior when compared to those obtained in model 1.

6 FINAL CONSIDERATIONS

In this study we tried to understand the nature of brand love and its relationship with Brand Equity and behavioral measures of loyalty and purchase intention. The measures constructed revealed good evidence of validity and reliability and provide a consistent basis for model testing. Based on the literature review, two alternative models were tested. In the first proposition, Brand Equity was conceived as the source of Brand love, whereas, the second Brand Love was deemed as the antecedent of Brand Equity. The fit measures and percentage of variance explained by the constructs reveals that the second model seems to be more reasonable and achieves greater predictive accuracy. This result suggests important implications for practice and theory in Brand Equity literature.

In a theoretical point of view, the study purports reveals that in a Brand Building context the more passionate and emotional evaluations (Brand Love) seems to be the natural source of the cognitive appraisal (Brand Equity). The model seems to suggest that functional and social benefits perceived in brands are reinforced by non rational evaluations that go beyond tangible attributes of the product. This outcome supports that consumers are more emotional than rational when evaluating brands. The study also steps on the studies analyzing Brand Love and its effects on increasing Brand equity and other Behavioral intentions.

From a practical viewpoint, this study reveals that affective aspects of the brand are really necessary on order to create brand love and in consequence brand equity. This implies the usage of more soft appeals in communication and less rational arguments if the objective is to develop brand equity in automobile industry. This supports the usage of weak arguments in messages despite the natural high involvement and risk attached in cars buying behavior. The results also suggest that even for high involvement sets weak messages could be used to develop brand equity.

The study also points for other research arenas around the Brand Love theme. It is important to identify relevant predictors of Brand Love and also identify the profile of “Brand Lovers Costumers”. The refinement of scales used in this study could also help in understating or improving a model fit beyond the moderates levels achieved in this study. Also, the scales need to be tested in other consumption sets in order to fulfill the goal of understanding the role of Brand Love for other products and services. One worth full aim could be to develop a Brand Love scale that could be used and tested in different market contexts supporting the generalization and comparison of results to different sectors and industries.
REFERENCES


