

**DEVELOPMENT AND VALIDATION OF A
BRAND TRUST SCALE**

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Development and Validation of a Brand Trust Scale

To enrich the limited and recent work existing about relational phenomena in the consumer-brand domain, the authors focus on the concept of Brand Trust. The non-existence of a wider accepted measure of this concept is surprising due to the fact that: (1) trust is viewed as the cornerstone and one of the most desired qualities in a relationship and, (2) it is the most important attribute any brand can own. In this context, this article reports the results of a multistep study to develop and validate a multidimensional brand trust scale drawn from the conceptualizations of trust in other academic fields. Multistep psychometric tests demonstrate that the new brand trust scale is reliable and valid.

The ultimate goal of marketing is to generate an intense bond between the consumer and the brand, and the main ingredient of this bond is trust (Hiscock 2001 p.1).

Despite increased attention and relevance drawn by the relationship principles in both theory and practice during the past decade, applications of the relationship notion at the level of brand have been scant (Fournier 1998). The lack of theoretical and empirical research on this subject is remarkable due to the fact that relationship thinking guides today's brand management practices to leverage consumer-brand bonds, especially due to the increasing unpredictability and heightened competitive pressures characterizing the current marketplace (Shocker, Srivastava, and Ruekert 1994). Furthermore, on a theoretical level the understanding of consumer-brand relationships is viewed to have critical importance to the development of marketing and consumer behavior theories (Miller 1995), and it also has implications to other relevant areas such as brand loyalty and brand equity.

The idea that a relationship between the person and his/her possessions exists is not novel (Blackston 1992). In this connection, consumer researchers have demonstrated that these relationships contribute to the consumer's sense of self, and in turn they may mediate a person's social or identity relationships (e.g., Belk 1988; Belk, Wallendorf, and Sherry 1989; Wallendorf and Arnold 1988). Among the few studies that are informative about consumer-object interactions undoubtedly Fournier's research (Fournier 1995, 1998; Fournier and Yao 1997) is a valuable

exception in this matter. On the basis of her research, Fournier describes the relationship consumers have with brands as a multifaceted construct to capture the richness of the fabric from which brand relationships arise (Fournier 1998). As such, what matters in the meaning and, in turn, the construction of consumer-brand bonds include such aspects as commitment, intimacy, love/passion, interdependence, self-connection, and brand partner quality.

However, in our opinion, an important facet of this relationship is missing in her framework. Whether, as suggested by Fournier, the relationship is in essence what the relationship means, understanding a consumer-brand relationship also requires an analysis of the consumer's trust in the brand. This idea is well illustrated by the realities of today's current brand management practices and how brand managers embrace this concept when defining their brands. For Bainbridge (1997), Kamp (1999), Smith (2001), and Scott (2000) trust is the most important attribute any brand can own. MacLeod (2000) considers that much of the vocabulary of modern brand building use words associated with personal relationship such as trust, and for Blackston (1992) trust is one component of consumers' relationships with brands.

Furthermore, the absence of brand trust in Fournier's (1998) framework calls our attention despite it has emerged as a key characteristic of a desirable relationship in a variety of disciplines. Researchers from basic disciplines such as psychology and sociology view trust as a cornerstone and one of the most desired qualities in any close relationship (e.g., Rempel, Holmes, and Zanna 1985; Rotter 1980) or as an

integral feature of human relations (e.g., Larzelere and Huston 1980). In more applied areas like management and marketing, numerous authors suggest that trust is an important element of relationships in business environment (e.g., Dwyer, Schurr, and Oh 1987; Garbarino and Johnson 1999; Hess 1995; Morgan and Hunt 1994).

In summary, trust is an important variable affecting human relationships at all levels (Rotter 1980). Therefore, whether concepts and theories from research on interpersonal relationships are used to characterize and evaluate consumer-brand relationships, trust should be analyzed as another facet of the bond between consumers and brands. Unfortunately, no current scale exists to measure trust in a brand setting.

In this paper, we develop and validate a scale to measure brand trust, which we call the Brand Trust Scale (BTS). Toward this end, we begin by examining the concept of trust in studies conducted in different academic fields to understand its meaning and its main characteristics. Based on this literature review, a definition of brand trust is proposed along with its relevant dimensions. We, then, deal with the generation of scale items, the research design, the data collection, and the methodology proposed to assess the psychometric characteristics of the scale (i.e., internal consistency and validity). Finally, we discuss the results in terms of their managerial practice, their limitations, and directions for further research.

CONCEPTUAL BACKGROUND

Theoretical Treatment of Trust in the Literature

Trust has received a great deal of attention from scholars in several disciplines such as psychology (e.g., Deutsch 1960; Larzelere and Huston 1980; Rempel et al. 1985; Rotter 1980), sociology (e.g., Lewis and Weigert 1985), and economics (e.g., Dasgupta 1988), as well as in more applied areas like management (e.g., Barney and Hausen 1994) and marketing (e.g., Andaleeb 1992; Dwyer et al. 1987; Morgan and Hunt 1994). Although this multidisciplinary interest has added richness to the construct, such a diversity of scholarship makes difficult to integrate the various perspectives on trust and find a consensus on its nature. As pointed out by Bhattacharya, Debinney, and Pillutla (1998), not only do different scholars address trust concept from different approaches and methods, but they have expressed inevitable differences of opinion over its nature. More specifically, Lewicki and Bunker (1995) identify three different approaches on how trust is viewed. In contrast to personality psychologist's view of trust as an individual characteristic (e.g., Rotter 1980), social psychologists consider trust as an expectation that is specific to a transaction and the person with whom one is transacting. Economists and sociologists, on the other hand, are interested in how institutions and incentives reduce uncertainty, and in turn increase trust, associated with transactions.

Nevertheless, a careful review of the extant literature makes apparent that most perspectives on trust agree that confident expectations and risk are critical

components of a definition of trust. For example, Deutsch (1973) defines trust as “the confidence that one will find what is desired from another, rather than what is feared”. Mayer, Davis, and Schoorman (1995) affirm that trust is “the willingness of a party to be vulnerable to the actions of another party...”, and Barney and Hansen (1994) suggest that trust “is the mutual confidence that no party to an exchange will exploit another’s vulnerability”. Therefore, to make the attribution that another person is trustworthy, there must exist the possibility to show that she or he is trustworthy (Rempel et al. 1985).

In trusting situations the sources of risk are generally related to vulnerability and/or uncertainty about an outcome. In particular, Blomqvist (1997) associated the risk perception with a situation of imperfect information because *in total ignorance it is possible only to have faith and/or gamble, and under perfect information, there is no trust but merely rational calculation*. Then, uncertainty regarding whether the other intends to and will act appropriately is the source of risk (Rousseau et al. 1998).

Consequently, trust is a psychological state interpreted in terms of “perceived probabilities” (Bhattacharya et al. 1998), “confidence” (Barney and Hansen 1994; Deutsch 1973; Garbarino and Johnson 1999) or “expectancy” (Rempel et al. 1985) assigned to the occurrence of some positive outcomes on the part of the trusting party. Accordingly, to trust someone implicitly means that there is a quite high

probability that this person will perform actions that will result in positive, or at least non-negative, outcomes for his/her exchange or relational partner.

For the previous theoretical treatments of trust, it is seen that this generalized expectancy or occurrence probability is based on the dispositional attributions made to the partner about his/her intentions, behaviors (verbal or nonverbal), and qualities. In other words, trust is based on the notion that people attempt to understand their partners in terms of acts, dispositions, and motives that would predict positive responses (Rempel et al. 1985).

Turning to the discussion of what these attributions are, each base discipline emphasizes a different type. However, to the best of our knowledge, the different nature of these attributions results in the distinction of two main dimensions in the concept of trust, because some of them have a motivational nature while a technical or competence-based one characterizes others.

The studies conducted in the psychology area are mainly focused on the motivational dimension of the concept. This dimension is related to the attribution that the exchange partner's behavior (verbal or nonverbal) is guided or motivated by favorable and positive intentions towards the welfare and interests of his/her partner (Andaleeb 1992). Therefore, it reflects the belief that one's partner does not have the intention to lie, to break promises, or to take advantage of one's vulnerability. To refer to this dimension a varied terminology has been used. For instance, Frost, Stimpson, and Maughan (1978) highlight the term *altruism*, Larzelere and Huston

(1980) propose two qualities of trust: *benevolence* and *honesty*, and Rempel et al. (1985) use the words *dependability* and *fairness*.

Inspired by interpersonal research, most channel studies also describe trust in terms of a set of motivational attributions because it is viewed as a mechanism to reduce the potential opportunism in a relationship (Geyskens, Steenkamp, and Kumar 1998; Geyskens et al. 1996; Morgan and Hunt 1994).

Nevertheless, other studies in management and marketing literature distinguish also in the concept a second group of attributions with a technical or competence nature. The reasoning underlying this idea is that, in the interactions taking place in the business field, a certain dependence on delivering expected outcomes and performing activities exists. Therefore, to assert that someone is trustworthy it is also necessary to know his/her capacity and abilities to perform these activities and produce the desired outcomes (Andaleeb 1992). There are several researchers who believe that it is appropriate to distinguish this second dimension in the concept and they use a variety of terms to refer to it. In the channel literature, Morgan and Hunt (1994) use the term *reliability*, Ganesan (1994), and Doney and Cannon (1997) mention *credibility*, while Andaleeb (1992) and Mayer et al. (1995) refer to this dimension with the concept *ability*.

In summary, on one hand the motivational dimension of trust is the extent to which one believes that its partner is interested in the one's welfare and interests. On the **other** hand, the competence dimension focuses on the belief that the partner has

the required expertise to perform his/her activities, carry out his/her obligations or accomplish his/her promises.

Defining Brand Trust

Drawing on the above mentioned literature we define brand trust as: *Feeling of security held by the consumer in his/her interaction with the brand, that it is based on the perceptions that the brand is reliable and responsible for the interests and welfare of the consumer.*

This definition is consistent with the relevant components of prior research on trust. First, brand trust involves a willingness to put oneself at risk, be it through reliance on the promise of value that the brand represents. Second, it is defined by feelings of confidence and security. Third, brand trust involves a general expectancy because it cannot exist without some possibility of being in error. Fourth, it is related to positive or non-negative outcomes. Fifth, it requires to make dispositional attributions to the brand such that it is regarded as reliable, dependable, and so on.

In consonance with the literature review, our definition of brand trust also incorporates all-important facets of trust that researchers include in their operationalization such as beliefs about fiability and intentionality.

The *fiability* dimension of brand trust has a technical nature because it concerns the perception that the brand can fulfill or satisfy consumers' needs. It is related to the individual's belief that the brand accomplishes its value promise. In our opinion,

this dimension is essential for trusting in a brand because if we consider a brand as the promise of a future performance (Deighton 1992), its fiability for the accomplishment of that promise leads the consumer to trust in the occurrence of future satisfaction. Underlying this dimension there is a sense of predictability that the brand satisfies the individuals's needs in consistently positive ways. Therefore, for all its value in conducting day-to-day exchanges, fiability is, at best, a starting point for describing brand trust.

The second dimension, *intentionality*, reflects an emotional security on the part of individuals. It describes the aspect of a belief that goes beyond the available evidence to make individuals feel, with assurance, that the brand will be responsible and caring despite the vicissitudes of future problematic situations and circumstances with the consumption of the product. Convictions on this nature are thus held and acted on in the present with the confident expectation that future events will prove them to be correct. Therefore, it is concerned with the belief that the brand is not going to take advantage of the consumer's vulnerability.

The current marketplace provides us with illustrative examples of the above mentioned circumstances such as the consumer outrage at contaminated Coca-Cola cans in some Western European countries (e.g., Belgium and France). Although ineffective corporate response, the company's reaction in guaranteeing no health problems for the brand users, taking out of the market those problematic units of the product, and investigating the problem origin could be viewed as the kind of actions

included under the intentionality dimension. More recently, McDonalds has tried to prevent its brand value and image from the mad cow disease affecting some Western European countries with an informational campaign guaranteeing the origin and quality of the meat of its hamburgers.

Far from being exceptional episodes in the consumer-brand relationship, Birch (1994) and Patterson (1993) consider that the increasing complexity of products, more stringent product-safety legislation, and more demanding customers make these situations frequent occurrences.

In short, both dimensions of brand trust reflect different perspectives from which making subjective probability judgments for a brand to be considered trustworthy. They arise out of different levels of cognitive and emotional abstraction and allow us to know what exactly a trustworthy brand is. Borrowing Bainbridge's (1997) words: *A trustworthy brand places the consumer at the center of its world and relies more on understanding real consumer needs and fulfilling them than the particular service or product. It is not merely responsive, but responsible.*

Taking into account that the meaning of brand trust and its two dimensions have been borrowed from both psychology and marketing fields, there are substantial differences between our definition and the ones recently used by Chaudhuri and Holbrook (2001), and Dawar and Pillutla (2000). First, their view of brand trust focuses on the perceived performance of the brand. For example, Chaudhuri and Holbrook (2001) define it as "the willingness of the average consumer to rely on the

ability of the brand to perform its stated function”, and Dawar and Pillutla (2000) describe brand trust in terms of reliability and dependability. Then, these verbal definitions are close to the fiability dimension of our definition but the motivational aspects associated with the concept are ignored. In our opinion, the desire to make the concept too precise, it may strangle the conceptual richness of the phenomenon. As such, our definition is more generalizable and has pontentially richer modeling.

Second, in consonance with Moorman, Zaltman, and Deshpande (1992), Chaudhuri and Holbrook (2001) incorporate the behavioral intention of “willingness” into their definition. In our conceptualization of brand trust, willingness is absent because, according to Morgan and Hunt’s (1994) arguments, confidence that a consumer can rely on the brand indeed implies the behavioral intention to rely. Therefore, willingness is redundant in the definition. Furthermore, most of researchers in different academic fields define trust as a feeling of security and confidence, and this is the view adopted by us.

Finally, in both studies the authors, probably because it was not the main purpose of their research, do not follow a systematic approach as suggested by Churchill (1979) for developing measures of construct guaranteeing their content validity and psychometric characteristics.

OVERVIEW OF SCALE DEVELOPMENT

No research has been conducted to develop systematically a reliable, valid, and generalizable scale to measure brand trust. Consequently, the objective of the present research was to develop and test a general measure of this concept.

The development of the scale followed the process suggested by Churchill (1979), and Gerbing and Anderson (1988) for developing better measures of marketing constructs. The process began with a careful literature review of prior research on trust in different academic fields. Based on this literature review, we have proposed a definition of brand trust and the distinction of two theoretical dimensions in the concept (i.e., fiability and intentionality). In conjunction with the literature review, in a second step a series of personal interviews were conducted with six consumers with the purpose of enriching the main ideas derived from the literature review. Each interview lasted from 45 minutes to one hour and the following topics were discussed:

1. Each consumer was asked to give a definition or examples of what he/she considers a trustworthy brand and what characteristics describe it.
2. Each consumer was questioned about what can be expected from a trustworthy brand.
3. An attempt was also made to ascertain the content validity of the items generated from the literature review.

As a result we generated a pool of 11 candidate scale items to reflect the dimensions of brand trust (see Appendix A). All items were evaluated with a five-point scale anchored at 1=“strongly disagree” and 5=“strongly agree”, and two of the items were negatively worded. Specifically, five and six items were designed to measure the fiability and intentionality dimensions respectively. In particular, the intentionality items were referred to the brand intentions as perceived by the individual when there is a problem with the consumption with the product.

In a third step, a questionnaire was developed that included (1) the 11-item brand trust scale; (2) an overall satisfaction measure; (3) several items relating to brand loyalty; and (4) demographic information such as gender, age, and education level.

This questionnarie was then administered to assess the dimensionality and reliability of the present measure of brand trust. Measurement items remaining after these analyses were subjected to different types of validity (i.e., convergent, discriminant, and construct).

Data Collection and Sample

Data were collected through telephone interviews by a market research firm from a random sample composed of 293 consumers who reported their personal experience with a brand in a specific product category. Elimination of incomplete data resulted in 221 useable surveys. Thirty-two percent of the sample was men and

sixty-eight percent was women¹. The median age of these respondents was 39.7 years, and their median level of education was some college.

We selected as a stimuli one product category: deodorant. Three criteria guided this selection. First, the literature describes this product as an “experience” product, that is, a product that consumers must actually experience through consumption to judge its quality and infer whether the brand accomplishes its value promise (Swait et al. 1993). Therefore, the uncertainty associated with the satisfaction of the consumption expectations makes important to look for a trustworthy brand as a determinant-buying criterion. Second, the participants in the interview process mentioned that, in general, a trustworthy brand is important when buying and consuming personal hygiene products such as deodorant or shampoo. Third, it is a product that most people are familiar with, and therefore their experiences with the product and different brands enable them to provide reliable and valid responses to the questionnaire.

EVALUATION PROCEDURES AND ANALYSES

For measurement analysis, we used conventional methods such as item-to-total correlations and exploratory factor analysis (Churchill 1979), as well as the more advanced approach of confirmatory factor analysis (Gerbing and Anderson 1988). Regarding the threshold values of the different criteria for assessing adequate

¹ This sex distribution of the sample matches the contribution of each sex in the annual market sales in 1998 according to an annual market report conducted by Nielsen in Spain.

measurement properties, we followed the suggestions of Anderson and Gerbing (1988), Bagozzi and Yi (1988), and Bollen (1989).

Exploratory Factor Analysis

We first conducted a series of exploratory factor analyses to examine whether the brand trust items produce the proposed factors and whether the individual items load on their appropriate factors as intended. Principal component analysis with a varimax rotation technique was conducted on all brand trust items and no restrictions were placed on the number of components to be extracted. On the basis of the “eigenvalue greater than 1” heuristic, three principal components were extracted that account for 65.68% of the total variance. Nevertheless, a careful observation of the correlation matrix for the 11 brand trust items suggested the non-convenience of two items to the analysis due to their mediocre sample adequacy (MSA of 0.68 and 0.59). These items are respectively “Brand [X] is not constant in satisfying my needs”, and “Brand [X] would no be willing in solving the problem I could have with the product”. These two items were next deleted, and a final principal component analysis was performed on the remaining items.

In this second analysis, two principal components with an eigenvalue greater than one were extracted, which explain 64.44% of the total variance. Both factors matched those dimensions identified with the literature review, and all their items had loadings and MSA greater than 0.7.

Reliability and Confirmatory Factor Analysis

The remaining nine items comprising the scale were next examined more rigorously to detect the dimensionality of the concept. For that purpose, a measurement model was specified to have two factors (latent variables) and each item was prescribed to be loaded on one specific latent variable according to the factor structure indicated in the exploratory factor analyses. We used confirmatory factor analysis and estimated the model through the LISREL 8.12 maximum likelihood method (Jöreskog and Sörbom 1996).

The confirmatory factor analysis implied the reduction of the items pool to improve the fit of the measurement model. A completely standardized solution showed that the brand trust items were loaded highly on their corresponding factors. Therefore, these analyses yielded a two-factor model of brand trust, 8-items scale comprised of four fiability and four intentionality items (Figure 1). Table 1 reports the final sample of brand trust items, their loadings, t-values and the fit statistics.

Insert Figure 1 about here

Insert Table 1 about here

Overall goodness-of-fit estimates of the measurement model suggested that the hypothesized factor structure reproduced the observed correlations within sampling error, which thereby indicated a good fit between theory and data. More specifically, for the model of Figure 1 the chi-square test was statistically significant ($\chi^2_{(19)}=$

47.24, $p=.00033$) but due to its problems related to sample size sensitivity (Fornell and Larcker 1981), other indexes are provided that indicated a reasonable level of fit of the model. For example, Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) were greater than 0.90; Comparative Goodness-of-Fit Indexes were also greater than 0.90 in Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI) and Incremental Fit Index (IFI); Root Mean Square Error of Approximation (RMSEA) was 0.082, and Standardized Root Mean Square Residual (SRMR) was 0.040.

Regarding the nature of individual parameters and the internal structure of the model, the loadings of the items to their corresponding dimensions were greater than 0.60, as suggested by Bagozzi and Yi (1988). In addition, the t-values for the loadings ranged from 10.75 to 15.21, which indicated high significance of the loadings.

Internal consistency estimates for the brand trust scale (BTS) is reported in Table 1. Composite reliability, which is a LISREL-generated estimate of internal consistency analogous to Cronbach's alpha (Fornell and Larcker 1981), was higher than the minimum recommended level of 0.60, and in both dimensions of brand trust it exceeded the preferred level of 0.7 (Churchill 1979).

Other estimates of internal consistency also were computed. First, average variance extracted estimates, which assess the amount of variance captured by a construct's measure in relation to variance due to random measurement error, were

calculated. Fornell and Larcker (1981) suggest that a level of 0.50 or greater supports the consistency among the items in a scale. The estimates for both dimensions of brand trust exceeded the advocated level. In addition, an examination of the corrected item-to-total correlations revealed that they ranged from 0.54 to 0.66 for reliability items and from 0.58 to 0.71 for intentionality items.

Taken collectively, item loadings, composite reliability, variance extracted and item-to-total correlations provided support for the reliability of the BTS. Consequently, variation in brand trust scale scores can be attributed to the true score of some phenomenon that exerts a causal influence over all the items. However, determining that a scale is reliable does not guarantee that the latent variables shared by the items are, in fact, the variables of interest. The adequacy of a scale as a measure of a specific construct is an issue of validity (Devellis 1991).

Assessment of Validity

After analyzing internal psychometric properties of the brand trust measurement instrument, we assessed the validity of the scale to know whether brand trust items measure the intended concept. Because validity is a matter of degree rather than a dichotomy of valid or not valid condition, three different types of validity were examined. The purpose of these analyses was to demonstrate the capacity of the BTS for measuring unique dimensions of the concept (convergent and discriminant

validity) and that it is related to other consumer behavior phenomena as theoretically suggested by the literature (construct validity).

Convergent Validity. For a convergent validity check of the BTS, we followed Bagozzi and Yi's (1988) suggestions that all items loaded on their hypothesized dimensions, and the estimates were positive and significant. As Table 1 reports, all items demonstrated adequate convergent validity. Their loading on the hypothesized latent variable was significant at $p < 0.01$, and the parameter estimates were 10 to 20 times as large as the standard errors (Anderson and Gerbing 1988).

Discriminant Validity. Evidence of discriminant validity among the dimensions of brand trust was provided by three different procedures recommended in the literature as follows:

- (1) When a 95% confidence interval constructed around the correlation estimate between two latent variables never includes value 1 (Anderson and Gerbing 1988).
- (2) When the hypothesized two-factor model of brand trust, as shown in Figure 1, has a significant better fit to the data than an alternative model in which the correlation estimate between latent constructs is constrained to value 1 (Anderson and Gerbing 1988).

(3) When individual average variance extracted for each latent variable exceeds the squared correlation between both latent variables (Fornell and Larcker 1981).

The results of all three tests are shown in Table 2 and provided strong evidence that the distinction of two dimensions in the concept is desirable. First, the correlation between the two dimensions of brand trust ($\Phi=0.31$) was significantly less than 1.

Second, the chi-square value for the hypothesized two-factor model was compared to the alternative model. There was a chi-square difference statistic between both models of 90.34 ($df=1, p<0.01$). This indicates that the hypothesized two-factor model provided a better representation of the data than did the alternative model.

Insert Table 2 about here

Finally, as a more rigorous test of discriminant validity, we compared the average variance extracted with the squared correlations for both dimensions of brand trust. Again the results provided good evidence of discriminant validity. The average variance extracted was 0.62 and 0.61 for fiability and intentionality dimensions respectively and both values were higher than the square of the phi estimate (0.0961).

Construct Validity. This type of validity is directly concerned with the theoretical relationship of a construct to other constructs. It is the extent to which a measure “behaves” the way that, according to the construct it purposes to measure, should behave with regard to established measures of other constructs (Devellis 1991). In this sense, for a check of the construct validity, we analyzed whether brand trust is related, as predicted by theory, to satisfaction and brand loyalty.

Regarding its relationship with satisfaction, it is considered that trust evolves from past experience and prior interaction (Hedaa 1993; Rempel et al. 1985). Other authors also support this idea. For example, Raval and Grönross (1996) consider that it develops through experience, for Curran, Rosen, and Surprenant (1988) trust is a state of being that develops over time, and Garbarino and Johnson (1999) view trust as a high order mental construct that summarize consumers’ knowledge and experiences. Therefore, as an experience attribute, it is influenced by the consumer’s evaluation of any direct (e.g., trial, usage) and indirect contact (e.g., advertising, word of mouth) with the brand (Keller 1993; Krishnan 1996). Among all of these different contacts with the brand, the consumption experience gains more relevance and importance as a source of trust. This is because according to Dywer et al. (1987) and Krishnan (1996), it generates associations, thoughts and inferences that are more self-relevant and held with more certainty. In this sense, it can be postulated that the overall satisfaction, as a general evaluation of the consumption experience with a brand, generates brand trust (Ganesan 1994; Selnes 1998).

Concerning the relationship between loyalty and brand trust, Garbarino and Johnson (1999), among other authors, highlight the importance of trust in developing positive and favorable attitudes. Other authors, such as Larzelere and Huston (1980), and Morgan and Hunt (1994) refer to its relevance as a central construct of any long-term relationship. Therefore, in the consumer-brand domain it may be an important contributor to the kind of emotional commitment that leads to long-term loyalty (Hess 1995). Consequently, in addition to the widely supported positive effect that satisfaction has on brand loyalty (Anderson and Sullivan 1993; Bloemer and Kasper 1995; Cronin and Taylor 1992), it seems reasonable to expect that the higher the feeling of trust in a brand the more the consumer is committed to it.

Following the discussion above, a theoretical model describing the relationships among brand trust, satisfaction and brand loyalty was specified.

On the basis of measures of consumer satisfaction found in the literature (e.g., Anderson and Sullivan 1993; Churchill and Suprenant 1982; Ganesh, Arnold, and Reynolds 2000; Oliver 1980, 1993), we used a global measure of satisfaction by means of a single item: “Overall, how satisfied are you with all your consumption experience with the deodorant brand [X]?”.

Regarding brand loyalty, early studies measured it on the basis of repeat patronage. Nevertheless, as pointed out by Ganesh, Arnold, and Reynolds (2000), researchers generally agree that operationalizing loyalty simply as repeat patronage is too simplistic and does not capture the multidimensionality of the construct

(Bloemer and Kasper 1995; Dick and Basu 1994; Jacoby and Kyner 1973). In line with this reasoning, recent measures of loyalty use multiple items including for example price sensitivity, self-stated retention, and the likelihood of spreading positive word of mouth (Beatty, Kahle, and Homer 1988; Bloemer and Kasper 1995; Dick and Basu 1994). Adapting these measures, we used four related items to operationalize the consumer loyalty construct that describe a generalized sense of positive regard for, and attachment to the brand (see Table 3).

Insert Table 3 about here

The correlations in Table 4 provide an initial test of the hypothesized relationships. All of them are supported at the $p < 0.01$ level.

Insert Table 4 about here

For a much stronger test, path analysis (LISREL 8.12) was used for testing the model and the hypothesized relationships as depicted in Figure 2.

Insert Figure 2 about here

The structural model specified overall satisfaction with the brand as the exogenous construct. The exogenous construct was related to two endogenous mediating constructs (i.e., dimensions of brand trust: fiability as η_1 , and intentionality as η_2) and these three constructs were related to the last endogenous construct, brand loyalty, as η_3 .

As diagrammed in Figure 2, the results indicated support ($p < 0.01$) for 4 of 5 hypothesized paths of the model. Goodness-of-fit statistics, indicating the overall acceptability of the structural model analyzed, were acceptable: $\chi^2_{(60)} = 169.82$ ($p = 0.00$); GFI = 0.90; RMSEA = 0.091; RMSR = 0.046; AGFI = 0.84; CFI = 0.93; NNFI = 0.91.

The hypothesized path from satisfaction to brand trust was supported. Furthermore, satisfaction explained a substantial amount of the variance of both dimensions of brand trust, as the squared multiple correlations (SMCs) reveal: $\text{fiability} = 0.61$, and $\text{intentionality} = 0.16$. The fact that brand fiability , as perceived by consumers, relies more heavily on satisfaction than brand intentionality does is in line with Rempel et al.'s (1985) statements about how trust evolves. According to their reasoning, the predictability of brand fiability is heavily related to the consistency of its performance as signaled by the overall satisfaction consumers have with the brand. In comparison with this dimension of brand trust, brand intentionality captures the essence of brand trust that is not securely rooted in past experience. However, in suggesting that past experience (e.g., satisfaction with the brand) is not an exact barometer of brand intentionality, it would be erroneous to imply that past experience plays no role.

The results also suggested that brand trust has considerable influence on brand loyalty explaining over half of its variance ($\text{SMS} = 0.69$).

In summary, as far as brand trust is positive related to satisfaction and brand loyalty, which is in line with the theoretical assumptions, the construct validity of BTS is supported.

Relevance of Brand Trust in the Development of Brand Loyalty

After developing the BTS and proving its psychometric characteristics, a remaining question of interest is to know the relevance of brand trust in the development of brand loyalty. For that purpose, we specified different models of brand loyalty. These models were sequentially compared to one another on the chi-square test according to Anderson and Gerbing's (1988) suggestions. Nevertheless, other goodness of fit indexes are also provided.

Specifically, three nested models were estimated: (1) the original model as depicted in Figure 2; (2) a constrained model in which the parameter of the relationship among satisfaction and brand loyalty (γ_{31}) is constrained to equal zero; and (3) an alternative model in which the parameters of the relationship among brand trust and brand loyalty (β_{31} and β_{32}) are constrained to equal zero.

From a theoretical perspective, these models give alternative interpretations of brand loyalty development because they differ in the relative importance attributed to brand trust when explaining the bond between consumers and brands.

On the one hand, in comparison with the original model, the constrained model identifies brand trust as the primary precursor of brand loyalty in accordance with the

Commitment-Trust Theory (Morgan and Hunt 1994). This theory posits trust as a key variable in the development of an enduring desire to maintain a relationship. On the other hand, the alternative model is in line with the traditional literature because it considers satisfaction as the key construct explaining brand loyalty. Consequently, in this model brand trust is just a peripheral evaluation of the past experience with the brand that does not have further effects on the commitment toward the brand.

The top portion of Table 5 presents the chi-square fit comparisons among the three models. In a first step, the original model (see Figure 1) was compared to the constrained model (i.e., with γ_{31} path equal to zero) and the differences in chi-square fit between them were not significant. Even more, the constrained model's values for the RMR, RMSEA, and CFI are virtually identical to those of the original model. In this situation, the constrained model is preferred because it is more parsimonious than the original one. In other words, other things being equal, simpler models are preferred over complex ones.

Insert Table 5 about here

Next, we compared the constrained model with the alternative model (i.e., with β_{31} and β_{32} paths equal to zero). According to chi-square difference test the constrained model provided a significantly better fit to the data than did the alternative model ($p < 0.01$), and the constrained model's fit indices were also higher than the alternative model's indices. Moreover, little, if any, more parsimony is gained with the alternative model as suggested by PNFI values (0.70 for constrained

model and 0.71 for alternative model). Then, we note that to accomplish an improvement in goodness of fit of 8.7% in RMR, 2.2% in RMSEA and 1% in CFI only a 1% of parsimony is sacrificed. Therefore, the constrained model is the best representation of the relationships among satisfaction, brand trust, and brand loyalty. The bottom portion of Table 5 presents the standardized path estimates for the constrained model.

In sum, this result indicates that, the presence of brand trust in a model of brand loyalty offers a better explanation of the bond existing between consumers and brands. Our findings not only give support to the idea of the key role played by brand trust in a model of brand loyalty, but also broaden the list of factors explaining consumer behavior. Therefore, not to control for the effect of brand trust could result in attributing excessive importance to satisfaction in developing a customer base committed to the brand when, according to the Commitment-Trust Theory (Morgan and Hunt 1994), trust is a variable closer to the enduring desire to maintain a relationship in the long-term. As an example of this, Garbarino and Johnson (1999) have demonstrated that satisfaction and trust play different roles in the prediction of the future intentions for low and high relational customers.

DISCUSSION

Trust has always been an important brand attribute, it is about consumer believing 'what I'm buying is what it promises to be'... In many ways, brand trust is the key to brand development... (Bainbridge 1997).

Despite tremendous interest drawn by trust concept from practitioners and marketing literature, there has been little scholarly research that has explicitly examined this concept in the consumer-brand domain.

Due to the non-existence of widely used and accepted measures of brand trust, this research represents one of only a few theoretical and empirical examinations of this concept. More specifically, it has sought to address this void by (1) developing a multi-item measure of brand trust, (2) assessing its psychometric properties, and (3) investigating its relational linkage with other theoretically related constructs such as satisfaction and brand loyalty.

Based on the literature review conducted, we have conceptualized brand trust as “a feeling of security held by the consumer in his/her interaction with the brand, that it is based on the perceptions that the brand, as a personified entity, is reliable and responsible for the interests and welfare of the consumer”.

Regarding the psychometric characteristics of the scale, the empirical evidence supports the internal consistency, and convergent, discriminant and construct validity of the brand trust scale.

More specifically, findings from this study give also empirical support for several relationships suggested in the literature regarding brand trust. Brand trust was positively related to overall satisfaction, which is consistent with those opinions asserting that, as an experience attribute, brand trust is influenced by the consumer evaluation of his/her consumption experience with the brand. In addition, a positive relationship was found between brand trust and brand loyalty suggesting the importance of the former as a contributor to the consumer commitment toward the brand. Furthermore, the results derived from the comparisons of different theoretical models of brand loyalty, in which brand trust plays a different role when explaining brand loyalty, highlight the centrality of brand trust as the main contributor to the development of a bond between consumers and brands.

IMPLICATIONS OF BRAND TRUST FOR CONSUMER RESEARCH

In 1998 Fournier provided a framework for better understanding the relationships consumers form with brands. Her intent of breathing new life into brand management gave opportunities for future research to refine and extend her task. Toward this end, the present study develops and validates a brand trust scale, which also gives answer to Chaudhuri and Holbrook's (2001) request for measures of this concept.

Taken into account the different facets of Fournier's (1998) *Brand Relationship Quality Construct*, this study contributes to a deeper and richer understanding of the

notion *Brand Partner Quality*. This notion covers some aspects related to our concept of brand trust, such as:

- (1) the judgments of the brand's overall dependability, reliability, and predictability
- (2) a felt positive orientation of the brand toward the consumer (e.g., making consumer feel cared for)
- (3) faith that the brand will deliver what is desired, and
- (4) security in the brand's accountability for its actions.

In this sense, the concept of brand trust would be reflecting the quality of the brand as a partner.

Although we have been highly selective in our study, because trust is not the only relationship construct that characterizes consumer-brand bonds, consumer research into a number of important areas of consumer behavior, such as brand loyalty and brand equity, may be also benefited by this concept.

Brand Loyalty Implications

Trust is viewed as a central variable to the development of brand loyalty (Fournier 1995; Garbarino and Johnson 1999; Morgan and Hunt 1994), due to the conceptual connections of relationship aspects to the notion of loyalty itself (Fournier and Yao 1997; Sheth and Parvatiyar 1995).

Therefore, the development of a brand trust scale breathes new theoretical perspectives into brand loyalty research because it would help to provide a wider understanding and explanation of this particular aspect of consumer behavior. As pointed out by Garbarino and Johnson (1999), for decades one of the key global constructs predicting consumer behavior has been overall satisfaction (Anderson and Sullivan 1993; Bloemer and Kasper 1995; Cronin and Taylor 1992; LaBarbera and Marzusky 1983; Oliver 1980). This variable has received the bulk of researchers' attention to the exclusion of other important constructs such as trust, which role in guiding future intentions has become more relevant after the shifting emphasis to relational marketing.

Furthermore, due to the more frequent presence of commitment in the studies of brand loyalty, as an expression of a successful relationship between the consumer and the brand, the importance of brand trust is reinforced by the current relational approach that characterizes both marketing theory and practice. This approach enhances the relational connotations of trust and its major proximity to the concept of commitment when explaining future intentions of consumers (Morgan and Hunt 1994). For Chaudhuri and Holbrook (2001) trust and commitment should also be associated, because trust is important in relational exchanges and commitment is also reserved for such valued relationships.

To that extent, the development of a brand trust scale marks the beginning of a deeper analysis of the *trust-commitment tandem* in the brand consumer domain against the traditional *satisfaction-buying intention* paradigm.

Based on the previous discussion, future research is needed to develop a deeper understanding of the relationship between brand trust and brand loyalty. In line with the research of Delgado and Munuera (forthcoming) and Garbarino and Johnson (1999), it would be also interesting to know the different roles that satisfaction and brand trust play in explaining brand loyalty depending on the different levels of perceived risk associated to the product. The fact that the condition for trust to arise is one of perceived risk (Andaleeb 1992; Mayer et al. 1995; Rempel et al. 1985), the individual would be more motivated to look for a trustworthy brand as a determining criterion of the purchasing decision when facing some degree of uncertainty in the satisfaction of his/her consumption expectations.

On a more general level, there is also room for additional studies that identify and analyze other antecedent variables affecting brand trust such as brand reputation or shared values with the brand. Especially brand reputation could play an important role in a model of brand trust because it can signal trust towards the brand among those individuals who are inexperienced with the product category to infer which brand is trustworthy or not.

Brand Equity Implications

Consistent with the widely held idea in the branding literature that brand equity exists because the brand adds utility and value to the individual's decision and consumption experience, trust is the essence of the value that the brand has for the consumer. In Richards' (1998) words, a strong brand is "a safe place for consumers" because it enables them to better visualize and understand the offer (Berry 2000), and face up with the uncertainty and perceived risk associated with buying and consuming a product. This is also fairly well supported by Sheth and Parvatiyar's (1995) opinion. These authors assert that the logic in the existence of the brand is to transmit trust to the market, especially when the direct contacts between consumers and companies are not possible. As such, the brand trust scale would make possible for knowing and understanding the role of brand trust in the development of brand equity. In this sense, it would be also interesting to analyze the role of brand trust in the development of brand equity and its relationships network with the different assets of brand equity identified by Aaker (1991) and Keller (1993).

Also, as suggested by Chaudhuri and Holbrook's (2001) findings, if brand trust determines brand loyalty, which in turn influence such outcome-related aspects of brand equity as market-share and relative price, then brand trust might be considered as another brand evaluation technique. Then, future studies are needed to compare and analyze the convergent validity of the brand trust scale with other measures of brand value.

Finally, as any study further research is needed to replicate and extent our findings. The fact that scales are established *by conventions or agreements among scientists about a good scaling* (Nunnally and Bernstein 1994, p. 24), future research should test our BTS to establish its validity among other populations and types of products. This would confirm the validity of the concept used in this research and help to refine its measurement due to its relative newness.

Of further interest would be the analysis of whether the brand trust scale proposed accomplishes with different kinds of invariance (e.g., configural, metric and scalar) when it is used in different product categories. In this sense, the configural invariance of the proposed scale will indicate whether the brand trust concept has the same meaning in different product categories. The metric and scalar invariances of the scale will allow us to compare the mean levels of brand trust in different product categories. This last aspect is especially important for those companies that have extended their brands to different types of product, because with this scale they could know in which product categories their brands are associated to higher or lower levels of trust.

MANAGERIAL IMPLICATIONS

Besides being theoretically insightful, our study has several managerial implications. First, to enjoy the substantial competitive and economic advantages provided by long term relationships with consumers, companies need to complement

their satisfaction programs with other activities focused on building brand trust. This implication is in line with the insights derived from a number of studies of consumers' relationships with corporate brands (Blackston 1992). According to these studies, there are two components in successful and positive relationships: satisfaction with the brand and trust in the brand.

In this sense, as far as brand trust is a signal of relationship quality between consumers and brands, the BTS would contribute to the management of the relationship individuals develop toward brands, especially when a direct contact with companies is not possible.

Second, as Blackston (1992) points out, many corporations act as if only producing good-quality products and services, which give the corporation a good image for dependability and reliability, is sufficient to gain the consumer's trust. However, our results suggest that the adaptation of an inherent quality of interpersonal relationships (e.g., trust) in the relationship between the brand and the consumer implies that the brand possesses some characteristics that go beyond its consideration as a mere product. This idea is far from new because the perspective of the brand as a person has already been proposed by authors such as Aaker (1991), Chernatony and McDonald (1998) and Fournier (1998), and qualitative researchers working for advertising agencies and consulting firms (e.g., Blackston 1992).

Consequently, it represents the recognition that brand loyalty and brand equity can be developed with the management of some aspects that go beyond consumer's

satisfaction with the functional performance of the product. Therefore, trust is also acknowledging that the individual is more than just a sales statistic or a client code. It is also to care about consumers, especially when facing unexpected problems with the product. This imply that companies have also to spend effort in creating and communicating consumers the correct attitudes and behaviors of their brands.

Furthermore, brand equity is viewed as a fragile asset because it is based on consumers' beliefs which can be prone to shifts due to, among other factors, unexpected circumstances and problems with the product (e.g., product-harm crises). Then, as far as the increasing complexity of products, more stringent product-safety legislation, and more demanding customers make these circumstances occur more frequent (Birch 1994; Patterson 1993), it is necessary to design mechanisms to protect brand equity from these circumstances. As such, the brand trust scale developed in this research might be a tool to manage brand equity because it provides information related to how supportive and consumer-oriented is perceived the brand.

Finally, the online marketing environment affects the way consumers view their relationships with brands (Wendkos 2000), because the anonymity of the internet makes branding more crucial (Salzman 2000). In this context, then, to add value to the online shopping experience and to build consumer loyalty brand trust is everything, and our brand trust scale would be a strategic tool to manage consumers' relationships with brands.

CONCLUSIONS

The construct of brand trust offers another way to account for consumer-brand relationships not previously considered by the literature, and also offers new perspectives on brand loyalty and brand equity research. In line of the scope and importance of such issues, and the diverse and compelling evidence supporting the role that brand trust may play in shedding light on these issues, the concept of brand trust has something to offer for an understanding of consumer behavior.

APPENDIX A

INITIAL SET OF BRAND TRUST ITEMS

Fiability dimension

1. With [X] brand name I obtain what I look for in a [product]
 2. [X] is a brand name that meets my expectations
 3. I feel confidence in [X] brand name
 4. [X] is a brand name that never disappoints me
 5. [X] brand name is not constant in satisfying my needs
-

Intentionality dimension

1. [X] brand name would be honest and sincere in addressing my concerns
 2. [X] brand name would make any effort to satisfy me
 3. I could rely on [X] brand name to solve the problem
 4. [X] brand name would be interested in my satisfaction
 5. [X] brand name would compensate me in some way for the problem with the [product]
 6. [X] brand name would not be willing in solving the problem I could have with the [product]
-

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TABLE 1**BRAND TRUST MEASUREMENT: CONFIRMATORY FACTOR ANALYSIS AND SCALE RELIABILITY**

Fiability items description	Standardized loading	t-value	Reliability SCR AVE
X ₁ : With brand [X] I obtain what I look for in a [product]	0.69	11.11	
X ₂ : Brand [X] is always at my consumption expectations level	0.83	14.29	SCR= 0.86 AVE= 0.62
X ₃ : Brand [X] gives me confidence and certainty in the consumption of a [product]	0.87	15.21	
X ₄ : Brand [X] never disappoints me	0.75	12.31	
Intentionality items description	Standardized loading	t-value	Reliability SCR AVE
X ₅ : Brand [X] would be honest and sincere in its explanations	0.68	10.75	
X ₆ : I could rely on Brand [X]	0.81	13.82	SCR= 0.86 AVE= 0.61
X ₇ : Brand [X] would make any effort to make me be satisfied	0.83	14.18	
X ₈ : Brand [X] would repay me in some way for the problem with the [product]	0.82	13.95	

NOTE.— Fit statistics for measurement model: $\chi^2_{(19)}=47.24$ (p=0.00033); GFI=0.95; RMSEA=0.082; SRMR=0.040; AGFI=0.90; CFI=0.97; NFI=0.95; NNFI=0.95, IFI=0.97.

TABLE 2**TESTS OF DISCRIMINANT VALIDITY**

	Test	Results	Discriminant validity?
1^{er} test	Confidence interval $(\phi_{21}) \notin 1$	$(\phi_{21}) = [0.17 ; 0.45]$	Yes
2nd test	$H_0: \chi^2_{\text{CONSTRAINED}} = \chi^2_{\text{NO CONSTRAINED}}$	$\chi^2_{(20) \text{ CONSTRAINED}} = 137.58$ $\chi^2_{(19) \text{ NO CONSTRAINED}} = 47.24$	Yes
3rd test	Average variance extracted $> (\phi_{21})^2$	Fiability: $0.62 > 0.31^2$ Intentionality: $0.61 > 0.31^2$	Yes

TABLE 3**BRAND LOYALTY MEASUREMENT: CONFIRMATORY FACTOR ANALYSIS AND SCALE RELIABILITY**

Item description	Standardized loading	t-value	Reliability SCR¹ AVE²
1. I consider myself to be loyal to brand [X].	0.83	13.85	
2. I am willing to pay more for brand [X] than for other brands on the market.	0.75	12.04	SCR= 0.84
3. If brand [X] is not available at the store, I would buy it in another store.	0.72	11.54	AVE= 0.57
4. I recommend to buy brand [X]	0.71	11.27	

NOTE.— Fit statistics for measurement model: $\chi^2_{(2)}=0.71$ (p=0.7); GFI=1.00; RMSEA=0.0; SRMR= 0.0079; AGFI=0.99; CFI=1.00; NFI=1.00; NNFI=1.00.

¹Scale composite reliability ($\rho_c = (\sum \lambda_i)^2 \text{var}(\xi) / [(\sum \lambda_i)^2 \text{var}(\xi) + E\Theta_{ii}]$; Bagozzi and Yi 1988)

²Average variance extracted ($\rho_c = (\sum \lambda_i)^2 \text{var}(\xi) / [(\sum \lambda_i)^2 \text{var}(\xi) + E\Theta_{ii}]$; Fornell and Larcker 1981)

TABLE 4

CORRELATION MATRIX

	Fiability	Intentionality	Satisfaction	Loyalty
Fiability		(0.07)	(0.06)	(0.04)
Intentionality	0.31		(0.07)	(0.07)
Satisfaction	0.59	0.30		
Loyalty	0.80	0.43	0.53	

NOTE.— Correlations are below the diagonal and standard error are above diagonal.

TABLE 5

GOODNESS-OF-FIT MEASURES FOR SUBMODELS OF BRAND LOYALTY

Model	Model description	χ^2	df	RMR	RMSEA	CFI	Model comparisons			
							Comparison	χ_d^2	df	Accepted
M1	Figure 1	169.8	60	.046	0.091	0.93				
M2	$\gamma_{31}=0$	170.4	61	.046	0.090	0.93	M1-M2	0.6	1	M2
M3	$\beta_{31}=0$ $\beta_{32}=0$	177.3	62	.05	0.092	0.92	M2-M3	6.9 ^a	1	M2

Standardized path coefficients for constrained model:

γ_{11} , satisfaction to fiability	0.55 ^a
γ_{21} , satisfaction to intentionality	0.27 ^a
β_{31} , fiability to loyalty	0.90 ^a
β_{32} , intentionality to loyalty	0.26 ^a

^a Significant at 0.01

FIGURE 1

MEASUREMENT MODEL OF BRAND TRUST

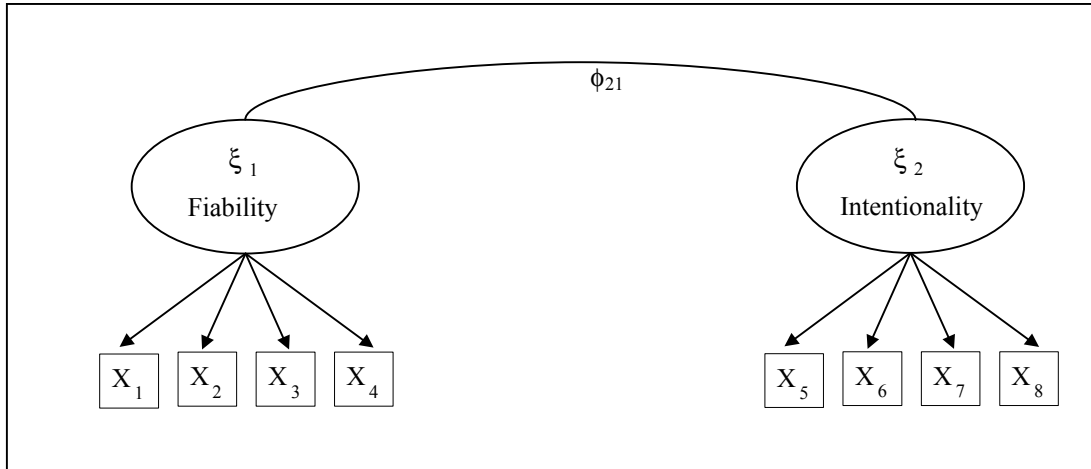
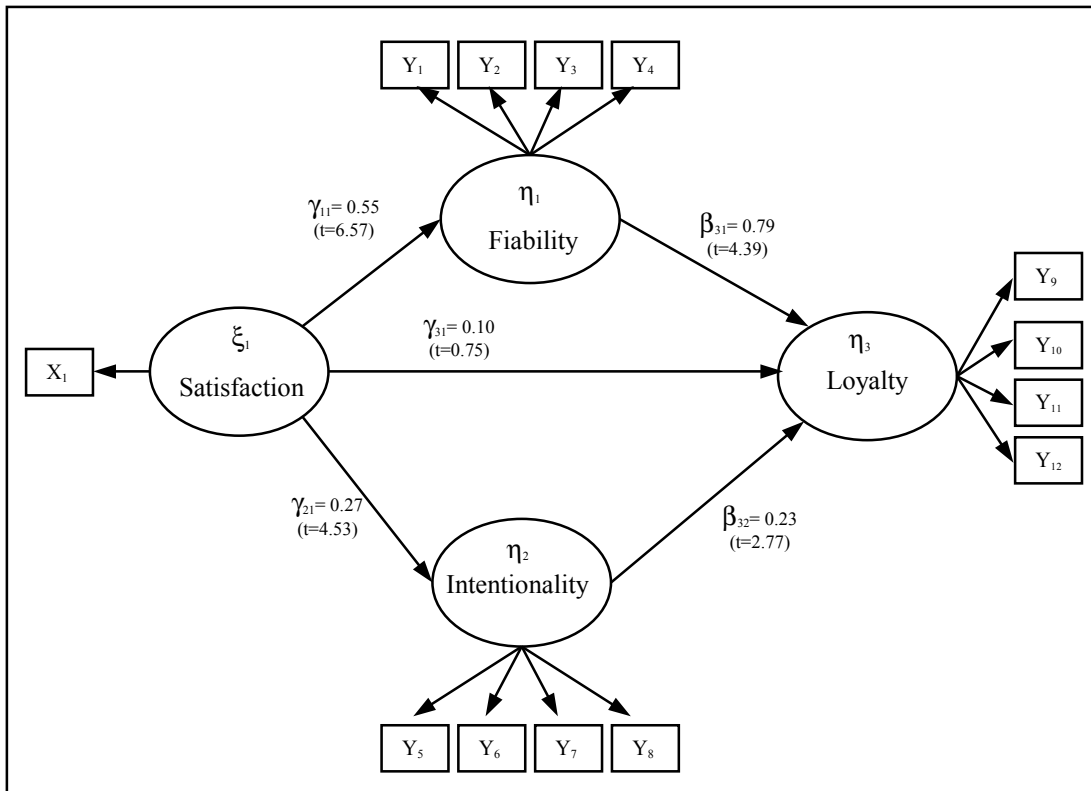


FIGURE 2

STRUCTURAL MODEL OF BRAND LOYALTY



NOTE.— Fit statistics for measurement model: $\chi^2_{(60)} = 169.82$ ($p=0.00$); GFI=0.90; RMSEA=0.091; RMSR=0.046; AGFI=0.84; CFI=0.93; NNFI=0.91.