DISTRIBUTION INTENSITY LEVEL AS AN ANTECEDENT OF BRAND EQUITY OF FOOD PRODUCTS

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Abstract

This paper proposes and tests a structural model of the relationships between distribution intensity and dimensions of brand equity of a food product. To estimate parameters used Structural Equation Modeling (SEM). We seek empirical confirmation of impacts of distribution intensity on four dimensions of brand equity: perceived quality, brand loyalty, brand awareness, and brand image. The model is tested using a sample derived from consumers of natural juices.

1. Introduction

More specifically, our goal is to assess the impact of the distribution intensity of a food product on brand equity. This paper is part of a wider investigation aimed at developing and testing a model to measure brand equity through the effect of the marketing efforts company on its dimensions, and the relationships among them.

We propose a conceptual framework based on existing theories and investigations on brand equity. On this basis, we build a theoretical model of causal relations among the variables of the marketing-mix program, in particular the distribution intensity level and the brand equity dimensions (perceived quality, brand loyalty, brand awareness and brand image). Our model was tested using the structural equation models (SEM).

The latent variables are determined by (1) the brand equity dimensions (Aaker, 1991); and (2) the possible effects of the distribution intensity level of a brand (Yoo, Donthu and Lee, 2000; Villarejo-Ramos, 2002). Empirically, the model is tested using data collected from a sample of natural juices consumers. After validating the questionnaire, and establishing the validity and reliability of the scales, we will apply the structural model that will enable us to measure brand equity.

2. Conceptual model of brand equity

Our starting point is Aaker's (1991) proposal on the concept of brand equity, and its integrating and explanatory dimensions: perceived quality, brand loyalty, brand awareness and brand image. We also assume that high equity brands provide several sources of value to the company and its customers. Based on these two premises, we propose the model shown in figure 1, which explains that the actions undertaken by the company, and particularly marketing efforts, can have a positive effect on the dimensions of brand equity, contributing to provide additional value to customers and the company (Bharadwaj, Varadarajan and Fahy, 1993), and ultimately, affecting company's performance.

INSERT FIGURE 1

As far as the companies are concerned, brand equity increases the likelihood that a brand will chosen, supports premium prices, increases the efficiency of the marketing efforts, and enhances brand exploitation opportunities (Farquhar, Han and Ijiri, 1991; Smith and Park, 1992; Barwise, 1993). On the other hand, high equity brand management decreases vulnerability to competitive marketing efforts and sensitivity to competitors' prices (Keller, 1993; Simon and Sullivan, 1993). In mergers and acquisitions, brand equity provides the required information to assess the company's intangible assets (Mahajan, Rao and Srivastava, 1994). In the stock market, changes in brand equity are used to quantify the transaction value (Lane and Jacobson, 1995). Finally, the introduction of new products as a brand extension will depend, amongst other factors, on the equity of the brand to be extended (Rangaswamy, Burke and Oliva, 1993).

Consumer-based brand equity is the difference between the attributes a consumer attaches to the buying-decision of a branded product versus an equivalent non-branded product, when it is the only difference between both (Aaker, 1991). It is a multidimensional concept because it comprises a series of elements that contribute to build up value for the branded product (Martin and Brown, 1990; Aaker, 1995; Erdem and Swait, 1998; Yoo *et al.*, 2000). Hence, high equity brands' consumers (1) have a high quality perception of the product, (2) are aware of the brand name faced to competitors, (3) attach

a series of positive associations to the product, which create a positive product image, and (4) identify themselves as loyal consumers of the brand.

In this paper, this widely recognized proposal will be further nuanced by examining one of the company's marketing efforts, namely the distribution intensity, as an antecedent of brand equity:

Generally, brand equity is accepted that a strategic factor of business management that can be created, maintained and intensified by strengthening each of its dimensions. Likewise, marketing actions are known to have a potential effect on brand equity, as they represent the cumulative impact of the investments made on the brand (Yoo *et al.*, 2000). Thus, brand equity can be strategically managed, with a view to maintaining brand consistency, protecting brand-related elements, making appropriate decisions, and integrating it into the marketing-mix program of the company (Keller, 1998).

The investments in the brand should promote and exploit this impact, and be aimed at reaching high brand awareness in the market, achieving a solid reputation, gaining and maintaining a loyal customer base, and creating a perception of high quality associated to the brand.

Thus far, to this global aspect of brand management, little attention has been paid (Aaker, 1991; Simon and Sullivan, 1993; Keller, 1993; Keller, Heckler and Houston, 1998). Most works have explored certain aspects of the marketing plan, and their role in brand equity. Yoo *et al*. (2000) consider all the different marketing actions to be antecedents in the determination of the brand equity dimensions. In particular, the authors reckon the role of retail prices, retail store's image, distribution intensity, advertising spending to reinforce the brand, and price promotions, as representative of the set of marketing-mix elements associated with brand maintenance and strengthening. Our investigation is in keeping with the above, and builds a theoretical model of relationships between the company's marketing efforts and the dimensions of brand equity with a focus on the effects of the distribution intensity level on brand equity as a whole, and on each of its particular dimensions.

2.1. Determination of hypotheses to be tested

Based on the multidimensional nature of brand equity and on the impact of the company's marketing efforts on its dimensions, particularly on the distribution intensity level, we set hypotheses about the

positive influence of the distribution intensity of durable goods on the proposed model for measuring brand equity.

In our structural model, brand equity is influenced by the different marketing actions of the companies. These causal relationships determine the statement of a series of hypotheses aimed at explaining the direct effects of the marketing antecedents of brand equity. The marketing actions developed by the company for building and maintaining a strong brand will be therefore considered antecedents of brand equity.

From our initial research, we infer one of the actions of the marketing program that involves a positive effect that the distribution intensity has on brand equity. The distribution intensity level plays an important part in the consumer's choice with regard to the value they attach to the brands (Yoo *et al*., 2000). As pointed out by different authors (Ferris, Oliver and Kluiver, 1989; Smith, 1992), consumers will be more satisfied if they can find the products in a great number of retail stores. That is to say, their satisfaction will increase if they are able to find their favorite brand anywhere, at any time. Therefore, high distribution intensity favors high brand equity.

Therefore, as shown in figure 2, we can set forth the first hypothesis of our research:

- *Hypothesis A ($\gamma>0$): The perception of the distribution intensity level of a food product positively affects brand equity.* INSERT FIGURE 2

The marketing actions carried out by companies can be aimed at improving brand equity through its dimensions. This involves a series of previous relationships, which determine the level reached by each one of the dimensions, showing the existing causal relations between each element of the company's marketing-mix scheme and the relevant constructs of brand equity on which they have a measurable impact. The creation, maintenance and management of brand equity requires determining the impact of the marketing actions controlled by the company on the levels of loyalty, perceived quality, brand awareness, and brand image attained.

The intensity of the distribution represents the number of points of sale in which the product is available. One speaks about distribution intensity when the product is sold in a great number of retailer

establishments all over the market. The fact that the store image is related to some dimensions of brand equity does not prevent the intensity with which a brand is distributed also being able to affect its image. In fact, some companies prefer selective or exclusive distribution for their products with the intention of managing to differentiate their brands by a high quality.

Nevertheless, the degree of intensity in the distribution does not affect in an equal way all the categories of products, differences between the distribution of goods of convenience and lasting goods being clear. However, according to some authors (Ferris *et al*, 1989; Smith, 1992), the consumers will prove to be more satisfied if they can find the products in a great number of establishments, meaning that they will have the certainty of finding their favorite brand at any moment and place.

This increase of satisfaction provokes a favorable predisposition towards the brand by which the associations linked to it are improved and, therefore, the brand image is increased. The intensive presence in the establishments supposes a major degree of knowledge of the brand too, so the increases in the distribution intensity will have a positive effect on the recognition attained by the brand name and its brand awareness.

In short, if distribution intensity provides usefulness and adds product value, it is reasonable to think that the greater the number of retailer's stores that sell the brand, the greater the consumer's perception of quality and their satisfaction, which will influence consumer's behavior leading to brand loyalty. The increased satisfaction makes consumers biased towards the brand, thus improving brand associations, and raising the brand image. On the other hand, the intensive presence of a brand in the establishments involves an extensive knowledge of such brand, so that high distribution intensity will have a positive effect on the recognition attained by the brand name and its degree of awareness.

Once established the relationships between the perceived of intensity level in the distribution and the components of the brand equity, we set out the hypotheses relative to the causal relationships between these variables:

- *Hypothesis 1 ($\gamma_{11} > 0$): The consumer's perception of the distribution intensity level positively affects a brand perceived quality.*

- *Hypothesis 2 (γ_{21} >0): The consumer's perception of the distribution intensity level positively affects brand loyalty.*

- *Hypothesis 3 (γ_{31} >0): The consumer's perception of the distribution intensity level positively affects brand awareness.*

- *Hypothesis 4 (γ_{41} >0): The perceived level of distribution intensity of a branded product positively affects the image of the brand.*

Finally, and as Aaker and Álvarez del Blanco (1995) indicate, brand awareness indirectly affects behavior, as it has a positive influence on perceptions and attitudes towards the brand. Furthermore, a link is assumed between the different brand associations that make up the image. We suggest a new hypothesis that establishes a relationship between brand awareness and brand image:

- *Hypothesis 5 (β_{43} > 0): High levels of brand awareness positively affect the formation of the product's brand image.*

After having established the existing relationships between the distribution intensity perceived on the components of the brand equity, we graphically portray the proposed structural model that gathers the hypotheses raise. In the development of the model (see figure 3) perceived quality, brand loyalty, brand awareness and brand image are influenced by the effect of the instrument of marketing used by the company that act as precedents. INSERT FIGURE 3

3. Methodology

3.1. Proposed measurement scales[2]

In order to develop the measurement process for the different elements involved, we have followed Bollen's recommendation (1989). Identify the dimensions and latent variables that represent the concept to be measured; create indicators based on the past theoretical position; and specify the relationship between the observable indicators or variables and the latent concepts or variables that they explain.

[2] The complete formulation of the measurement scales used in the research can be seen in tables 1 to 5.

3.2. Measure of the "distribution intensity" variable

The distribution intensity aims to measure the consumer's perception regarding the number of points-of-sale where they can find the brand they are interviewed about. Therefore, it is an index that measures perceived distribution intensity of a product.

Following Yoo *et al*. (2000), who adapted and modified the scale previously proposed by Smith (1992), we have decided to consider three indicators to provide an approximation to the perceived distribution intensity of the product-brand (table 1). INSERT TABLE 1

3.3. Dimensions of Brand Equity scales

We define perceived quality, as a subjective judgment made by the consumer regarding the excellence or superiority of a product Zeithaml (1988). The consumer's opinion about the product's quality and its attributes with regard to its expected performance forms the measurement scale indicators of the brand quality perceived by individuals (table 2). INSERT TABLE 2

Brand loyalty plays an outstanding role in generating brand equity, not only because of its capacity to keep loyal customers (Aaker, 1991; Grover and Srinivasan, 1992), but also because of its maneuvering capacity that gives a loyal portfolio to the company (Cebollada Calvo, 1995). See table 3.

INSERT TABLE 3

High levels of brand name recognition are those that present the brand with a high degree of brand awareness. For this reason, knowledge and recognition of the brand compared to its competitors are indicators that serve to form the measurement scale for this dimension (table 4).

INSERT TABLE 4

The brand associations that form its image are related to a series of tangible and intangible attributes associated with the brand, which conditions a favorable attitude to choosing the brand. These aspects linked to the brand are collected as an item in the scale (table 5). INSERT TABLE 5

4. Empirical research and findings

This paper attempts to test a structural model for brand equity. Therefore, in order to test the effectiveness of the proposed method, our research should focus on one product category and the brands that operate in this market. The choice of natural juices as the product category is justified based on three criteria. (1) The influence of brands in the consumer market and the buyers' sensitivity to them are higher; (2) the market distribution of natural juices brands in Spain shows various brands in tough competition -none of them having significant differences from others-; and (3) the high rate of usage of this product in Spanish homes[3].

The technical datasheet for the research, included in table 6, summarizes the design of the empirical work performed. The proportional affixation was performed based on the different urban areas of the city.

Of all the 325 individuals who answered our questionnaire in a useful way, almost 70 per cent were women. This is explained by the fact that chosen product is consumed at home, so the decision to acquire it and what brands to choose depends on the person who has this purchase responsibility.

INSERT TABLE 6

4.1. Analysis and evaluation of the measurement tools

This section evaluates the measurement scales used in our research (Likert, 1-7). We performed the reliability and validity analysis by estimating its validity, one-dimensional qualities, and internal consistency.

The process adhered to in the measurement scale evaluation is summarized in the following way. First, we use *Cronbach's Alpha* statistic like an adequate index of the inter-item consistency reliability of independent and dependent variables (Yoo et al., 2000), supplied by the SPSS program. After, we performed the confirmatory factor analysis aimed at (1) testing the one-dimensional qualities of the scales, (2) testing the construct validity of each of them, and (3) providing a more robust reliability measurement through internal consistency.

[3] The market of fruit juices in Spain, distributes almost half of its volume (49.8 per cent) between tour companies that commercialise six brands: A brand (21.2 per cent), B brand (16.8 per cent), C and D brands (5.9 per cent), and E and F brands (5.9 per cent). Source: *Alimarket*, nº 173, mayo, 2004.

The discriminant validity of the brand equity construct, which we consider multidimensional[4], has been tested by analyzing the correlations among the construct components, so that the construct displays discriminant validity if the squared correlation between its components is lower than either of their individual extracted variances.

Assessment of the "distribution intensity" scale

The reliability of the initial three-indicator scale, which measures the exogenous "distribution intensity" variable, was tested through the *Cronbach's Alpha* statistic, which yields a value that falls slightly below the acceptable figure. Although one of the indicators shows a low individual correlation level, and the alpha in the total scale would increase by removing it, we have decided to keep the indicator to avoid losing information.

After estimating the scale through the ADF method supplied by the AMOS 3.61 statistic software, we obtain the results for the convergent validity and individual reliability as shown in table 7.

INSERT TABLE 7

Evaluation of the dimensions of brand equity scales

The "perceived quality" scale presents nine initial indicators. After the model estimation, the different indicators with low individual reliability are iteratively removed through the squared correlation coefficient. Once the scale is re-estimated with five indicators, an acceptable global adjustment is obtained (table 8).

In order to measure "brand loyalty" we have applied a reliability analysis to the initial scale of eleven indicators, which have yielded an acceptable correlation of all the items with the initial scale (except the BL7 indicator). The removal of the BL7 indicator improves *Cronbach's Alpha* of the scale. After the re-estimation we obtain suitable values in the convergent validity and individual reliability of the indicators. There is, however, a poor adjustment with regard to the goodness measures. We remove the indicators iteratively. Finally, the results suggest a valid and reliable scale of six indicators (see in table 8).

[4] For further details on this topic, see Villarejo Ramos (2002, pp: 520 and fol.)

A reliability analysis is firstly performed on the initial scale of four indicators that measure "brand awareness." One indicator do not exceed the required value; however, (1) given that the levels are not too far off and (2) to avoid losing information, it is decided to maintain the scale with four indicators[5].

The "brand image" scale initially presents twelve indicators; *Cronbach's Alpha* statistic shows an acceptable level. Once the model is estimated through the ADF procedure and the less reliable indicators are sequentially removed, the scale is finally formed by six indicators. INSERT TABLE 8

Thanks to the foregoing analyses, we have been able to validate a measurement model for the "distribution intensity" variable and for each of the dimensions of the "brand equity" construct. In table 8, show the refined and validated scales and the internal consistency data for each scale.

5. Discussion about the structural model and results

Following the evaluation and analysis of the measurement tools, we carried out the analysis of the structural model. The two structural models that collect the hypotheses set forward in this paper were correctly specified and identified; the presence of a favorable marketing effort influence on the variable to be explained was confirmed between distribution intensity and brand equity.

Once the measurement model was tested for suitability, the estimation of structural models follows. The validated indicators of the exogenous measurement model and the average values of the validated scale indicators for the dimensions of brand equity[6] are included. This measurement is adopted to make the estimation procedure for complete models possible (Babin and Boles, 1998); its complexity makes it difficult to use all of the validated indicators. Therefore using the average values is accepted according to the work criteria of Podsakoff and McKenzie (1994).

The global goodness of fit measures for the first model reached acceptable values in the main indicators, albeit slightly below the required level (GFI=0.826; RGFI=0.840; RMSEA= 0.099). The parameters relating to the adjustment of the first of the structural models are shown in table 9. Once the results were interpreted and the model adjusted, we tested the suitability of the proposed model on

[5] The reliability analysis through the *Cronbach's Alpha* statistic shows us that the total scale correlation does not improve after removing any indicator.

[6] The average values used are a result of the validation of the scales used for measuring the dimensions of brand equity, these being, perceived quality, brand loyalty, brand awareness and brand image.

the effect of the marketing effort on brand equity for natural juices purchasers. Thus, we can **verify *Hypothesis A*** of our work, which stated the favorable influence that the distribution intensity level has on perishable goods in determining their brand equity. INSERT TABLE 9

The second structural model examines the causal relations between marketing efforts and the dimensions of brand equity. In our study, we have explored the influence of the distribution intensity level on the dimensions of brand equity. All the effects formulated in the hypotheses were favorable. That is to say, the distribution intensity positively affects the perception of quality, the degree of brand awareness, the brand loyalty and its image. The second structural model shows acceptable global fits (GFI= 0.847; RGFI=0.860; RMSEA=0.093). This model has been developed removing non-significant relationships. The results are shown in table 10.

The structural parameters that displayed an influence of the distribution intensity level of the perishable good on "perceived quality" and "brand image" have significant values, but in the direction opposite to that expected, showing a negative effect on both components. The parameter that measures the influence of the distribution intensity on the degree of loyalty toward the brand is statistically non-significant.

Since the evaluation of the model carried out through global fit and fit of the final measuring model shows high values for internal consistency of the exogenous variable, we can confirm the suitability of the final measurement model. Therefore, the study confirms the suitability of the structural model and confirms the opposite of hypotheses H1 and H4, which stated a positive influence (rejected and confirmed with opposite sign) of the level of distribution intensity on the perception of the brand quality and its image. INSERT TABLE 10

The model has allowed us to **verify hypothesis H3**, which stated a favorable relationship between distribution intensity and brand awareness, and the indirect effect of the intensity level on brand associations, through the effect of the degree of brand awareness, **confirming hypothesis H5**, as shown by the high value of the structural parameter.

6. Conclusions, implications and limitations

Amongst the most relevant conclusions of our investigation, distribution intensity has been proved to exert an influence on brand equity for food products, so that an intensive presence of the brand in retail stores relates to high brand equity. In fact, in the case of natural juices, brand awareness is favored by the greater presence of the manufacturer's brands in the establishments.

Furthermore, brand awareness favorably affects the brand image as perceived by the consumers. The set of associations linked to the brand favors a positive attitude toward the product, as the product recognition and the degree of awareness increase. This causal relationship is significant and quantitatively important. Therefore, we think that brand awareness and brand name recognition by juice purchasers favor the attitudes toward the brand, and enhance brand image. Consumers, who perceive it as a high equity brand, trust it and see it as a guarantee of expectation fulfillment, can accept a well-known brand with a high degree of awareness. Also of paramount importance are brand associations, which will allow the brand to maintain its position in the consumer's mind, and will protect its image from competitors.

In light of the above, we might think that the distribution strategy chosen by the manufacturer would largely determine the purchaser's perception of quality of the brand and their loyal behavior (Ferris *et al*., 1989; Smith, 1992). Further, the greater the number of stores where consumers can find the brand, the greater their satisfaction, reinforcing this way the brand-customer relationship, and consolidating brand loyalty. Nevertheless, the opposite confirmation and/or rejection of the initial hypotheses that positively related distribution intensity and these dimensions of brand equity makes us look for an acceptable explanation.

According to Yoo et al. (2000), an exclusive and selective distribution is determinant for achieving a perception of higher quality. In the purchase of food products (i.e. natural juices), the consumer's choice often involves a low implication and a relatively effortless product search. High distribution intensity is therefore required.

About relationship between distribution intensity and brand loyalty, we must reckon that the consumers in our sample find these brands in everyday retailers', so that the time and space advantage that distribution intensity provides does not have an important role in the consumer's consideration set for this type of products. Since they always find their favorite brand wherever they go, a higher or lower intensity does not have a significant impact on brand loyalty.

There are some limitations inherent to this study. First, the cross-sectional design is not the ideal for the purpose of our research as it limits the results because consumers are asked about their opinion at a given moment in time. This can be the reason for the rejection of some hypotheses. Since brand equity is dynamic over time, the study should have taken account of the time factor.

On the other hand, the conclusions have been drawn in the frame of a wider study that explores the influence of further marketing efforts that clearly affect brand equity. These have not been examined in this paper with a view to examining certain indirect effects, from the interaction between antecedents that have been observed in the research conducted for the whole model of the effects of marketing efforts on the dimensions of brand equity.

As to the method used, it is worth mentioning that for the structural equation models to be applied, the causal relationships between variables must be linear. In the real world, it would be a determinant for the results.

In light of the above, juice manufacturers should reflect on some of the confirmed, significant relationships found in our study between distribution intensity and brand awareness, and indirectly brand image. The model testing reveals a significant favorable influence of the distribution intensity of juice on the degree of brand awareness. Therefore, natural juice manufacturers seem to consider that by way of their presence in the retail stores, they communicate an image based on the recognition of their brand name. By being available at retailer's stores, they increase the degree of brand recognition, and build up the image of the brand of juice.

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FIGURE 1

Brand Equity Conceptual Model

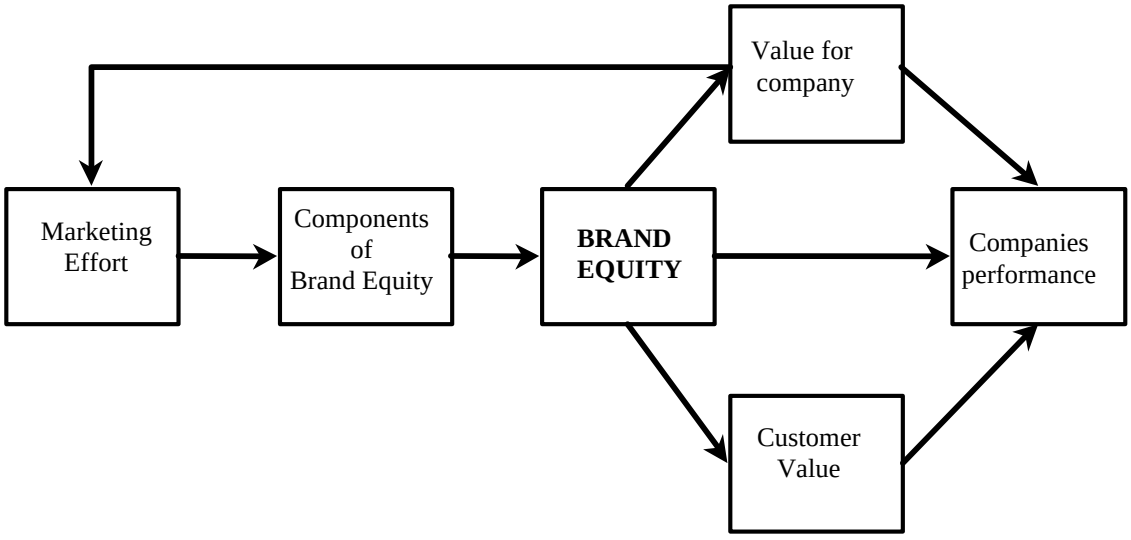

FIGURE 2

Theoretical Model

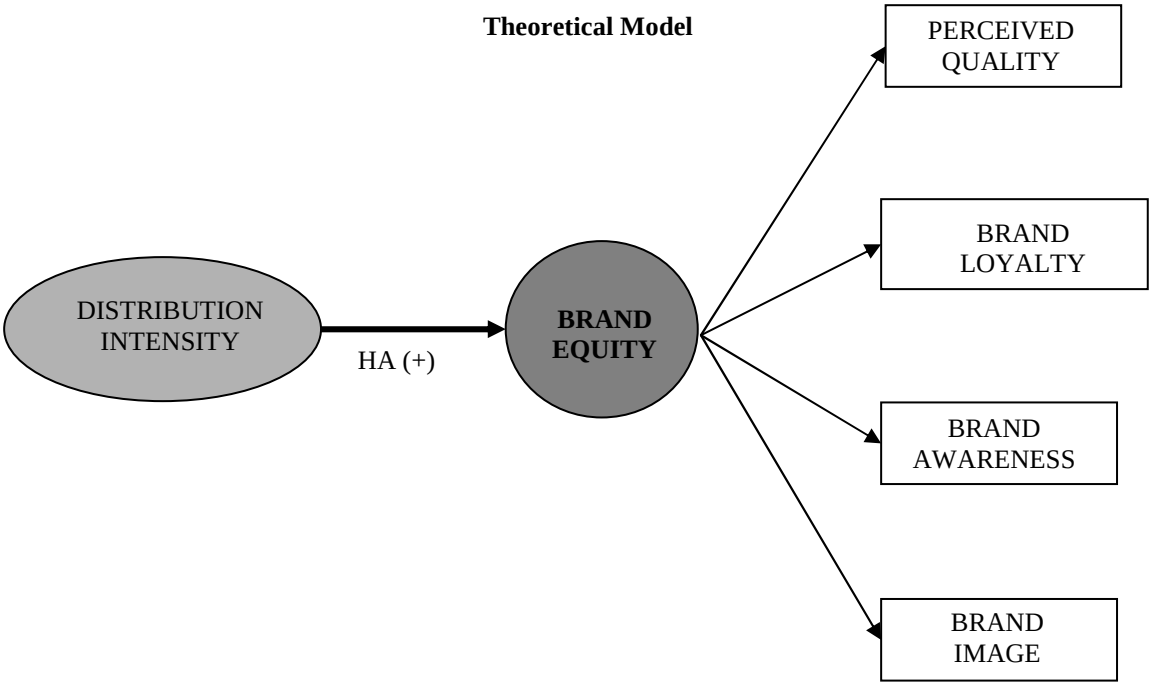

FIGURE 3

Effects of antecedent on components of brand equity Model

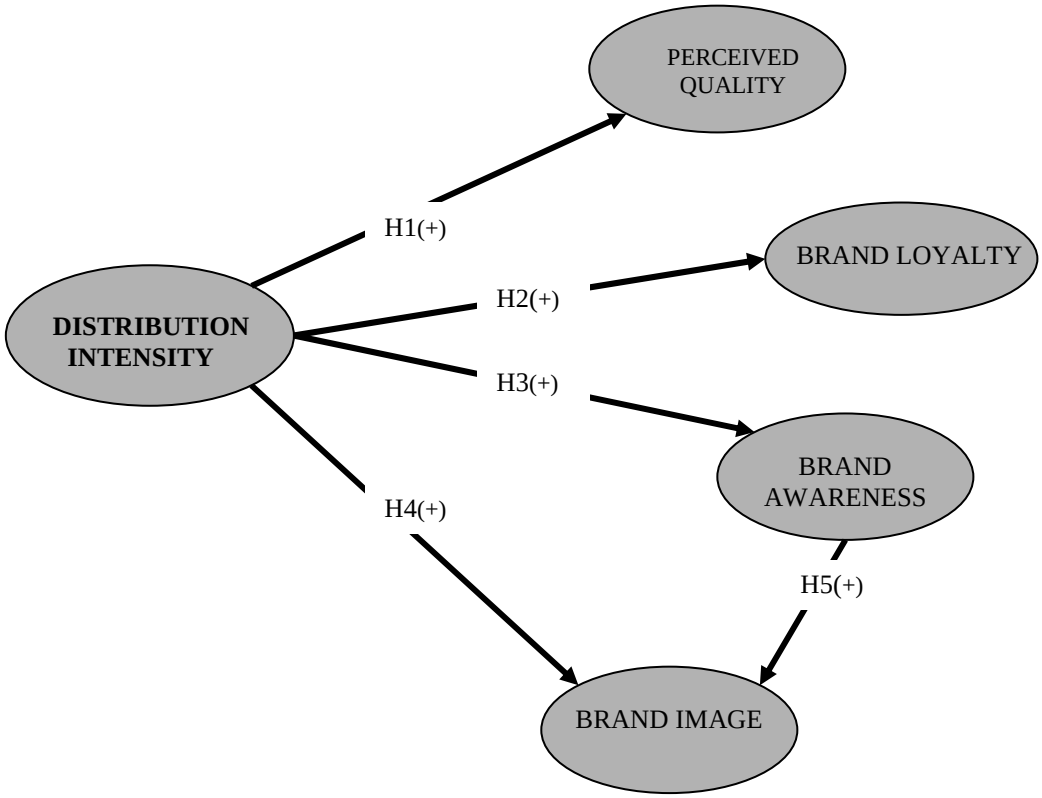

TABLE 1

Measurement scale of "Distribution Intensity"

DI1	Compared to its competitors, I can find X brand in more retailers
DI2	X choose with extreme care, than competitors, the retailers where it sales its products
DI3	X brand is available in the most stores

Source : Smith, 1992; Yoo et al, 2000

TABLE 2

Measurement Scale of "Perceived Quality"

PQ1	X is of high quality
PQ2	The likely quality of X is extremely high
PQ3	The likelihood that X be satisfying is very high
PQ4	The likelihood that X is reliable is very high
PQ5	X must be of very good quality
PQ6	X is a brand characterized by its continuous innovation
PQ7	X is a quality leader within its category
PQ8	Compared to its competitors, I appreciated X brand
PQ9	Compared to its competitors, I respected X brand

Source: Aaker and Álvarez del Blanco, 1995; Lassar, Mittal and Sharma, 1995; Yoo, Donthu and Lee, 2000.

TABLE 3

Measurement Scale of "Brand Loyalty"

BL1	I consider myself to be loyal to X brand
BL2	X would be my first choice
BL3	I will not buy other brands if X is available at the store
BL4	X brand fulfilled my expectations the last time I bought it
BL5	I will buy X again
BL6	I will suggest X to other consumers
BL7	The price of another brand should be considerably inferior to not choose X
BL8	In the case of not using it, I would like to buy X brand
BL9	Even if another brand has the same features as X, I would prefer to buy X
BL10	If there is another brand as good as X, I prefer to buy X
BL11	If another brand is not different from X in any way, it seems smarter to purchase X

Source: Aaker and Álvarez del Blanco, 1995; Yoo, Donthu and Lee, 2000

TABLE 4

Measurement scale of "Brand Awareness"

BA1	I know what X looks like
BA2	I can recognize X among other competing brands
BA3	I am aware of X brand
BA4	I know X brand

Source: Yoo et al., 2000

TABLE 5

Measurement scale of "Brand Image"

BI1	Some characteristics of X come to my mind quickly
BI2	I can quickly recall the symbol or logo of X
BI3	X has a strong personality
BI4	I have a clear impression of the type of people who use X brand
BI5	X has a strong image
BI6	The intangible attributes X brand are reason enough to buy it
BI7	X provides a high value in relation to the price we must pay for it
BI8	X is a very good brand
BI9	X is a very nice brand
BI10	X is a very attractive brand
BI11	X is an extremely likeable brand
BI12	X is a different brand

Source: Aaker et al. 1995 ; Lassar et al.1995; Yoo et al. 2000

TABLE 6
Research details

PRODUCT AREA	Families consumers of natural juices
GEOGRÁFIC LOCATION	Seville (Spain)
SURVEY METHODOLOGY	Personal questionnaire (buying decider under 18 years old)
TYPE OF SAMPLING	Proportional simple
SAMPLE SIZE	N = 325
SAMPLING ERROR	±5,43%
LEVEL OF SIGNIFICANCE	95% Z_α = 1,96 p=q= 50%
DATE	October 2003

TABLE 7
Evaluation of DI scale

Validated Item	Cronbach's alpha	Standardized loading	Individual reliability: R^2	Composite reliability	Variance extracted
Distribution Intensity DI1, DI2, DI3	0,6229	> 0,5	> 0,35	**0,7616**	**0,5229**
	Fit measures[7]	GFI=0,922; RGFI=0,923; CFI=0,753; NFI=0,751; IFI=0,757; AGFI=0,530			

TABLE 8
Evaluation of the dimensions of brand equity scales

Validated Item	Cronbach's alpha	Standardized loading	Individual reliability: R^2	Composite reliability	Variance extracted
Perceived Quality PQ1,PQ3,PQ4, PQ5,PQ9	0,8672	>0,6	>0,4	**0,8891**	**0,6185**
	Fit measures	GFI=0,962; RGFI=0,963; RMSEA=0,065; CFI=0,918; NFI=0,873; IFI=0,922; AGFI=0,885			
Brand Loyalty BL1, BL2, BL3, BL9, BL10,BL11	0,8707	>0,7	>0,5	**0,9282**	**0,6847**
	Fit measures	GFI=0,907; RGFI=0,911; RMSEA=0,130; CFI=0,816; NFI=0,794; IFI=0,820; AGFI=0,784			
Brand Awareness BA1, BA2, BA3,BA4	0,8336	> 0,6	> 0,4	**0,8492**	**0,5877**
	Fit measures	GFI=0,984; RGFI=0,985; RMSEA=0,017; CFI=0,997; NFI=0,965; IFI=0,997; AGFI=0,919			
Brand Image BI3, BI5, BI8, BI9, BI10, BI11	0,8588	> 0,7	> 0,5	**0,9297**	**0,6895**
	Fit measures	GFI=0,879; RGFI=0,882; RMSEA=0,139; CFI=0,737; NFI=0,715; IFI=0,744; AGFI=0,717			

TABLE 9
First Structural Model Estimates

Variable	Composite Reliability	Variance Extracted
Distribution Intensity	0,8135	0,7105

Causal Relationship	Hypothesis	Standardized Parameter	t-value
Distr. Intens.→ Brand Equity	*A*. CONFIRMED	γ = 0,242	4,372
Fit Measures	χ^2=618,1; *g.l.*=149; *p*=0,00; GFI=0,826; RGFI=0,840; RMSEA=0,099; CFI=0,692 NFI=0,635; IFI=0,697; AGFI=0,778		

[7] GFI: goodness of fit index; RGFI: relative goodness of fit index; RMSEA; root mean square error of approximation; CFI: comparative fit index; NFI: normed fit index; IFI: incremental fit index; AGFI: adjusted goodness of fit index.

TABLE 10
Second structural model estimates

Variable	Composite Reliability	Variance Extracted
Distribution Intensity	0,7685	0,7979

Causal Relationship	Hypothesis	Standardized Parameter	t-value
Distrib. Intens.→ Perceived Quality	*H1*. CONFIRMED (INVERSE SENSE)	γ_{11}=-0,161	-3,183
Distrib. Intens. → Brand Loyalty	*H2. NOT CONFIRMED*	γ_{21}=- 0,055	-0,956
Distrib. Inten. → Brand Awareness	*H3*. CONFIRMED	γ_{31}=0,084	1,775
Distrib...Intens. → Brand Image	*H4*. CONFIRMED (INVERSE SENSE)	γ_{41}=-0,162	-3,712
Brand Awareness → Brand Image	*H5*. CONFIRMED	β_{43}=0,290	3,136
Fit Measures	χ^2=549,5; *g.l.*=142; *p*=0,00; GFI=0,847; RGFI=0,860; RMSEA=0,093; CFI=0,738; NFI=0,681; IFI=0,743; AGFI=0,796		