The relationship between store image and store brand equity: A conceptual framework and evidence from hypermarkets

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A B S T R A C T
Retailers are making considerable efforts to improve their brand management. The challenge they face, however, is how best to integrate coherently their stores, as brands, and their various distributor brands (store brands, private labels, etc.), in order to increase their brand equity and offer the market differential value that will stimulate customer loyalty. From this perspective, it is crucial for retailers to investigate the relationship between the store and their own brands. This study proposes two theoretical models showing the mechanism whereby store image helps increase the equity of a specific type of distributor brand (the store brand). The approach used in this analysis is based, on the one hand, on defining brand equity through its components, using the model in Aaker (1991), and on the other, on including (social and strategic) corporate dimensions in measuring store image. The empirical research made in the hypermarket sector in the Basque province of Gipuzkoa backs the majority of the proposed hypotheses. The results show that store image can be used by retailers to influence all components of store brand equity, essentially through its commercial and strategic dimension. This research is intended to address the clear lack of research on store brand equity.

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1. Introduction and background

Distributor brands have often been considered as simple products targeted at a price-sensitive public and not as “brands” per se. Part of the reason for this is attributable to the distributor brands themselves, which in the 1970s and 80s chose to disclaim any such identification, presenting themselves in society as the brands themselves, which in the 1970s and 80s chose to disclaim per se. Part of the reason for this is attributable to the distributor brands themselves, which in the 1970s and 80s chose to disclaim any such identification, presenting themselves in society as the great consumer defenders, that would free customers from the any such identification, presenting themselves in society as the great consumer defenders, that would free customers from the...
Few studies refer to the equity of the distributor brands, although distributor’s brands can enjoy brand equity (De Wulf et al., 2005). With regard to the subject of our study, some authors have approached the relationship between store image and store brand equity by examining the effect of store image on consumer assessment of these brands (Semeijn et al., 2004), perceived quality (Cudmore, 2000), or image (Collins-Dodd and Lindley, 2003; Vahie and Paswan, 2006). We have chosen to analyse that relationship using the components of brand equity in the model given in Aaker (1991), which provides a complete and integrating approach to the concept of brand equity. Moreover, these components include loyalty, thus enabling us to examine the relationship between store image and loyalty to store brands, an aspect that has not previously been studied in other works. The first of the models we propose therefore studies the relationship between the store image and equity components of store brands (based on Aaker’s model). The specific purpose of this model is to determine the main components through which store image contributes to increase store brand equity.

Secondly, basing ourselves on the work being carried out by stores to enrich their brand image using corporate aspects and with a view to providing an even closer picture of the object of our study, we propose a second model relating the different dimensions of store image and store brand equity. To achieve this, we define store image from a broader perspective than that often found in the literature, including not only the commercial, but also the corporate side. The specific purpose of this second model is to identify the dimensions of store image that are most relevant for their impact on store brand equity.

The remainder of the paper is structured as follows. The next section develops a conceptual framework based on store brand equity and its antecedents. We then review literature relevant to the relationship among the constructs and propose the research hypotheses. This is followed by a description of the research methodology adopted. The results are discussed subsequently. Next the theoretical implications and implications for managers are provided. The article concludes by suggesting directions for future research.

2. Conceptual framework

Fig. 1 sets out our conceptual framework of store brand equity, which is an extension of Aaker’s model (1991). Aaker proposes that (1) brand equity creates value for both the customer and the firm, (2) value for the customers enhances value for the firm and (3) brand equity consists of multiple dimensions. We extend this model in two ways. First, we replace brand equity with store brand equity. Second, we add antecedents of brand equity, specifically store image and store brand’s price, assuming they have a significant effect on store brand equity.

The extension of Aaker’s model is based on the premise that branding can be applied to store brands. For consumers in mature countries, store brands are perceived as genuine brands, with their attributes of awareness and image always combined with an attractive price. This is because many stores currently offer a portfolio of distributor brands with a capacity for customer attraction and a quality comparable to manufacturer’s brands (Olle and Riu, 2009). From a managerial point of view store brands are, broadly speaking, brands like any other (thinking of a particular target, defining an offer and price, setting themselves up with packaging and communication). However, they are subject to two important limitations (Kapferer, 2008): (1) their image positioning is based on that of the store and (2) they generally use price as the driving force behind their own marketing mix, even when, exceptionally they are positioned in a premium segment. This suggests that the store’s autonomy in influencing its distributor brand equity is limited, to a large extent, by store image and price, underscoring how important these variables are from the perspective of managing store brand equity.

2.1. Store brand equity and its components

The concept of store brand equity is based on the concept of brand equity, which has been defined from different perspectives in the field of marketing.

Aaker (1991) defines brand equity as “a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customers”. Rust et al. (2000) consider brand equity to be “the customer’s subjective and intangible assessment of the brand, above and beyond its objectively-perceived value”. Keller (1993), finally, defines brand equity as “the differential effect of brand knowledge (consisting of awareness and image) on consumer response to the marketing of the brand.”

Integrating all these perspectives, and in general terms, brand equity can be said to refer to a set of components (assets and liabilities linked to a brand) that flow into a global and subjective value associated with a brand, generating a differential response from consumers.

Many researchers have sought to study and measure the components of brand equity, in order to estimate brand equity (Martin and Brown, 1990; Irmscher, 1993; François and Maclachlan, 1995; Lassar et al., 1995; Agarwal and Rao, 1996; Arnett et al., 2003; Villarejo and Sanchez, 2005; Broyles et al., 2009). In this work, using the same approach, we will define and measure store brand equity using its components, based on a specific model: Aaker’s model. These components are as follows: perceived brand quality, brand loyalty, brand awareness and brand associations. We shall define them in the following terms:

The perceived quality of the brand can be conceived as a consumer’s subjective overall judgement of the excellence or superiority of a product, resulting from a process of evaluating its various attributes (intrinsic and extrinsic), each of which will have greater or less importance depending on situational and personal factors (Zeithaml, 1988).

Brand loyalty represents behaviour of repeated non-random purchase displayed over time by a unit of decision that can choose between different brand alternatives, and, which is the result of psychological processes (cognitive, emotional and connative) and social processes that result in a commitment to a given brand (Dick and Basu, 1994).

Brand awareness comprises the consumer’s ability to recognise or recall a brand when s/he is exposed to a given product category (Rossiter and Percy, 1987).
Brand associations, finally, are evocations or nodes of information of any type that are linked to the brand in the consumer's memory (Aaker, 1991).

In order to facilitate measurement of brand equity, we are going to simplify its structure, distinguishing between three, rather than four, components. The simplification, used before by Yoo et al. (2000) and Baldauf et al. (2003), involves combining awareness and associations in a single construct, based on the close link between the two. Indeed, both can be considered as nodes of information that are closely related in the mind of consumers, according to memory models (Krishnan, 1996): awareness involves the presence of the brand in the consumer's mind while brand associations involve the set of ideas linked to the “brand” node. What we measure with the multi-item scale is a mixed form of awareness and brand associations, considering that brand associations are a much richer concept than mere awareness (Yoo et al., 2000). We have thus designed a set of items that measure brand associations by incorporating brand recognition.

The reasons for choosing Aaker's model are as follows:

- It provides a complete and integrating approach to the concept of brand equity.
- It has been empirically demonstrated that there is a positive relationship between the components of brand equity considered by the author and the value generated both for the consumer (Yoo et al., 2000) and for the firm (Kim et al., 2003).
- It includes loyalty among the components of brand equity, thus enabling us to examine the relationship between store image and loyalty to store brands, an aspect that has not previously been studied in other works.
- The model is an important reference in the marketing-related scientific community in general and in the area of retailing in particular, having previously been used to measure retailer equity (Arnett et al., 2003; Pappu and Quester, 2006; Jinfeng and Zhilong, 2009).

In short, store brand equity is defined in the following terms: it is a set of assets and liabilities linked to the store brand that add to or detract from the value endowed by a product or service to the retailer and/or its customers.

2.2. Antecedents of store brand equity: store image and price

The components of brand equity can be fed by means of opportunistic marketing actions (antecedents of the equity) in order to generate value for the customers and the firm. (Yoo et al., 2000; Villarejo and Sanchez, 2005). The marketing literature shows that there are two key antecedents to store brand equity: store image and price (Garretson et al., 2002; Collins-Dodd and Lindley, 2003; De Wulf et al., 2005).

The store image is defined, in a broad sense, as the set of brand associations linked to the store in the consumer's memory (Huvé-Nabec, 2002). These associations can refer both to perceptions of the store's attributes (Bloemer and Ruyter, 1998), and to the consumer's perceived benefits and attitudes (Keller, 1993; Thompson and Chen, 1998). Nonetheless, the majority in the scientific community consider that store image is expressed in terms of a store's attributes as assessed by consumers (Devlin et al., 2003).

These attributes vary in character. So, for example, consumers' perceptions of a firm's basic offer create the marketing image (Barich and Srinivasan, 1993; Marconi, 1996). Secondly, consumers tend to associate stores with a personality, essentially based on the emotions it produces in them (Floor, 2006). Finally, stores can also be perceived as firms, linking the store to aspects such as the firm's interest in and commitment to society (Turban and Greening, 1996; Brown and Dancing, 1997) or its global corporate strategy and its strategic approach (Fombrun and Shanley, 1990; Higgins and Bannister, 1992).

Most studies on store image have centred on the dimensions shaping its marketing image. In doing so, they have taken into consideration the most tangible dimensions, such as the quality and variety of the products provided, the prices and physical facilities of the store, and the services provided to customers, which are intangible in character. This work, however, looks at store image from a broader perspective, including also the corporate image deriving from its social and strategic behaviour. Store personality, however, will not be included among the dimensions of the store image, given that, although specific scales have been developed for measuring it (D'Astous and Levesque, 2003), they are complex and would overly extend the number of items used for measuring store image.

In short, from the perspective of this research, store image is conceived as a set of brand associations of a commercial, social and strategic nature linked to the store.

The second of the antecedents of store brand equity is price. It has often been considered as an indicator of product cost, in a strict application of economic theory. Marketing literature, nonetheless, highlights the importance of perception, with consumers transforming price signals into cognitive structures provided with meaning. The perceptive coding rules used by consumers to assess prices (Jacoby and Olson, 1977; Dodds et al., 1991; Rajendran and Tellis, 1994; Nagle and Holden, 1995) suggest that buyers exposed to the same price stimulus assign different meanings to it, transforming it, on the basis of their own internal criteria, into a perceived price.

3. Theoretical development: models and hypotheses

The theoretical models presented below have been developed in accordance with the research objectives and the aforementioned conceptual framework and with the literature on the relationships under study. The first of the proposed models relates store image to each of the components of store brand equity in order to determine, which are the main components through which store image contributes to increase store brand equity. The second model centres on store image, relating its different dimensions to the store brand equity. This allows us to identify the most relevant dimensions of store image in terms of impact on store brand equity. Note that price perception has also been included as an antecedent of equity in the proposed models, although this variable does not fall within the objectives of the research. We thus seek to avoid the problem that would be caused by an error in specification of the model, i.e., we want avoid the possibility that an omission of price, a key antecedent of store brand equity, might distort the measure of the relationship between store image and store brand equity (Hair et al., 1998). The relational paths among the constructs are summarised in Figs. 2 and 3.

3.1. Relationship between store image and the components of store brand equity

Store image and perceived quality of store brands: Cue utilisation theory suggests that when making quality judgments consumers employ direct and indirect indicators of quality. The direct indicators include items such as product ingredients, taste, and texture all of which relate to the physical properties of the product. Conversely, indirect indicators are those product-related cues, which are not part of the physical product such as price or
brand name (Dick et al., 1996). Store brands can be viewed as an extension of the brand name of the store itself. Thus, a better store image leads to a greater perception of store brand quality (Cudmore, 2000). Richardson et al. (1996) showed through field experiments that store aesthetics aid in forming a perception of store brand quality. Semeijn et al. (2004) also assigned a relevant role to store image, suggesting that it is a direct indicator of the perceived quality of store brands.

**Store image and store brand loyalty:** Yoo et al. (2000), speaking about manufacturer brands, argue that there is no apparent causal relationship between the variables mentioned; if the retailer's image does not match the perceived image of the product, it will not in itself be sufficient reason for the consumer to show loyalty, and thus loyalty need not be affected either positively or negatively. On the other hand, they argue that only in the case of a strong match between store image and product image will the consumers show loyalty to the brands offered by the store. This suggests that, in the specific case of certain store brands, there may be a positive relationship between the two variables, given that their image tends to be consistent with that of the store.

**Store image and store brand image (brand awareness and brand associations):** Collins-Dodd and Lindley (2003) show through an empirical study that consumers' perceptions of a store are positively related to store brand image. They consider that store brands are different from other brands in that they are not only exclusive to specific retailers, they are also owned by the retailer. Hence the extrinsic cue provided by the store should be much more relevant than is the case for national brands. If we consider store brands to be a brand extension of the store brand itself, then the brand extension literature supports the notion that store associations and evaluations can be generalised to store brands. Their empirical study indicates that store image influences not only the quality dimension of store brand's image but also its affective dimension.

Based on all of the above, we pose the following hypotheses:

- **H1a:** Store image positively influences the perceived quality of store brands.
- **H1b:** Store image positively influences loyalty to store brands.
- **H1c:** Store image positively influences awareness/associations of store brands.

### 3.2. Relationship between the dimensions of store image and store brand equity

**Marketing image and store brand equity:** A store's marketing image is reflected in the quality and variety of the products, the convenience, the prices, the store's physical environment and the service quality. Consumers use these cues to form an overall evaluation that will affect their attitude toward the store as a whole and towards its store brands (Semeijn et al., 2004). The literature provides numerous references to the positive effect of the store's marketing image on store brand equity or its components (Cudmore, 2000; Collins-Dodd and Lindley, 2003; Semeijn et al., 2004; Vahie and Paswan, 2006). However, there is a distinct lack of empirical work explicitly studying the relations between the other dimensions of store image and store brand equity.

**Social image and store brand equity:** Social image comes from Corporate Social Responsibility, that is, from the degree to which firms assume economic, legal, ethical and discretionary responsibilities towards their stakeholders (Maignan et al., 1999). The perception of socially responsible behaviour can play an important role in corporate outcomes, including reputation, brand commitment, differentiation, purchase intent and customer identification with a company (Brown and Dancing, 1997; Turban and Greening, 1996; Lichtenstein et al., 2004, Mohr and Webb, 2005). According to García de los Salmones et al. (2005) in the services market, social responsibility can take on a much clearer role than in the tangible products market. Indeed, the characteristics of intangibility, inseparability, heterogeneity and perishability of services as compared to tangible goods means that consumers approach purchasing in a different way and establish stronger and more direct relationships with the service provider. Jones et al. (2007) show the considerable benefits that stores can gain from socially responsible behaviour, including strengthening the store's reputation and increasing store brand equity, which can be transferred to the products the store provides. In a study...
carried out on the Swedish market, Anselmsson and Johansson (2007) show that the socially responsible image of the store has a positive influence on store brand purchase intentions, and they therefore argue that this type of brand can be positioned on the market through attributes that go beyond price.

**Strategic image and store brand equity:** The way an organisation is perceived depends not only on its social behaviour but also on its strategic behaviour. An organisation’s combined culture, people, plans and assets/capacities can constitute one of the pillars of a brand’s identity (Aaker, 1991), and; therefore, of the store, whose image may be transferrable to brands closely linked to it (Hsieh et al., 2004). In this regard, Keller and Aaker (1998) stress the important role played by associations linked to the firm’s capacity for innovation, which have a positive influence on perceived quality and the likelihood of purchasing products identified with the corporate name. Along the same lines, Page and Fearn (2005) show through an empirical study that a company’s success and leadership represent relevant brand associations, because the sense that the company you are buying from is innovative and dynamic adds an implicit sense of security and cachet to the purchase.

Therefore, we can hypothesise that consumers who perceive a store as a competent firm, with accumulated know-how and a capacity to innovate in order continuously to adapt the market, may also perceive that it has a greater capacity to develop high-quality own brands that satisfy their desires and needs.

All of the above leads us to pose the following hypotheses:

- **H2a:** The marketing image of a store has a positive influence on store brand equity.
- **H2b:** The social image of a store has a positive influence on store brand equity.
- **H2c:** The strategic image of a store has a positive influence on store brand equity.

### 3.3. The relationship between perceived price and the components of store brand equity

**Price and perceived quality of store brands:** Price acts as an indicator of product quality (Suri et al., 2000), which means that a low price can be associated with lower quality and vice versa (Rao and Monroe, 1988; Ratchford and Gupta, 1990; Dawar and Parker, 1994). This relationship holds across most categories (Lichtenstein and Burton, 1989), although its strength may be reduced by non-price cues (Zeithaml, 1988). We therefore deduce that the perception of affordable price of store brands can negatively influence the perceived quality of store brands.

**Price and loyalty to store brands:** The difference in price compared to manufacturer brands is a key variable in the store brand purchase process (D’Astous and Saint-louis, 2005). At the same time, strategies by retailers intended to emphasise value for money in the choice of their own brands have a positive and significant effect on predisposition towards buying them (Richardson et al., 1996; Baltas, 1997). We propose, therefore, that the perception of an affordable or relatively low price has a positive influence on consumer loyalty to store brands.

**Price and awareness/associations of the store brand:** Price plays an essential role in the configuration of associations related to the store brand value proposition (Aaker, 1991). Store brands have evolved throughout time and are no longer simply category killers (De Wulf et al., 2005). However, their value proposition is still strongly influenced by price. Unsurprisingly store brands are perceived as cheaper alternatives than national brands. Besides, store brands can create psychological benefits related to the savings linked to the purchase, as well as associations related to a certain type of brand user, given that the purchase of good quality products at reasonable prices leads to a “smart buyer” impression.

This set of considerations leads us to the following hypotheses:

- **H3a:** The perception of affordable price of store brands has a negative influence on the perceived quality of store brands.
- **H3b:** The perception of affordable price of store brands positively influences loyalty to store brands.
- **H3c:** The perception of affordable price of store brands positively influences awareness/associations of store brands.

### 4. Research method

#### 4.1. Overview of the data collection

The situation of distributor brands is complex (Kapferer, 2008); this is unsurprising, given that they are present in numerous retail formats (hypermarkets, discount stores, department stores, etc.) and product categories (McGoldrick, 2002) and follow diverse strategies. This makes it necessary to select a specific area in which to validate the hypotheses formulated above. The retail format we have chosen is the hypermarket, due to the important role it has played in the modernisation of the Spanish commercial system and also because the high degree of concentration makes it easy to cover all firms operating in Gipuzkoa. These firms are the internationally-known Carrefour and Auchan names, together with Eroski, which operates essentially on the domestic Spanish market, where it is one of the leading food distribution groups. In selecting the specific establishments we have tried to seek the greatest possible degree of homogeneity. We have therefore selected hypermarkets located in shopping centres (each firm has two establishments of this type in Gipuzkoa). The reference product category is olive oil, because of its contribution to the market share of store brands in Spain. The store brands considered in this research could be catalogued as third-generation distributor brands, close to the fourth, given that their basic value proposition is value for money, but they incorporate differential value added features (such as care for the environment, health, etc.).

Data were gathered in two stages: in the exploratory stage, we used a focus-group technique and three in-depth interviews targeted at the managers of the companies analysed. Using the technique of an eight-person focus group, we sought to capitalise on the capacity for free discourse and the natural and spontaneous responses of consumers on store image and distributor brands. This proved very useful in determining what lexicon was commonly used regarding the subject of our study and in deciding on the items to be used in the survey. The in-depth interviews were conducted with management staff from the three stores covered by the study. The purpose was to obtain information on a range of aspects, such as the procedures used for managing store identity, the specific characteristics of their hypermarkets and the customer profile of their store brands. This information proved useful not only for determining important aspects of the subsequent quantitative study, but also for identifying at first hand the issues associated with brand management in commercial distribution firms.

In the second stage, we conducted a telephone survey of 405 purchase decision-makers from the universe of study (135 surveys for each banner). To do this, we took the following steps: firstly we created a database made up of people from the universe of study who were willing to answer our telephone survey. In order to create this base, several surveys from a firm specializing in this type of survey travelled to each of the hypermarkets.

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There they stood in the vegetable oils section and took the details of people willing to take part in the survey, offering them in exchange a small gift as an incentive. Altogether 750 contact cards were gathered (250 for each banner). Eight operators from the survey company then conducted the agreed phone surveys, calling each person during their stated preferred hours. The surveys were carried out between 28 and 31 January 2008, with a sampling error of ± 4.9 at a confidence level of 95% under hypothesis p=q=0.5. The sampling characteristics, shown in Table 1, match the profile of consumers of store brands, based on the information obtained in the in-depth interviews.

### 4.2. Scale development

Based on various scales of measurement provided by the literature and on the theoretical analysis made, we created a raft of items, which we measured using Likert 1–5 scales (Table 2).

**Dimensions of the store image:** The marketing image of the store was measured using a raft of five items based on Chowdhury et al. (1998), to which we added an indicator on the services offered by the store. The firm’s social image is measured taking as a base the consumers’ perceptions of the firm’s ethical and philanthropic conduct. The four indicators proposed for measuring this construct are based on the work of García de los Salmones et al. (2005). To measure the strategic image, we used four items based on Aaker (1996) referring to innovation, the firm’s future, the organisation’s experience (as a sign of competence and safety) and the firm’s adaptation to the local culture.

**Components of store brand equity:** To measure loyalty, we started from the twin aspects of the concept, behaviour and attitude. The three indicators selected come from a scale proposed by Taylor et al. (2004). The quality perceived by the consumer is measured using a scale that seeks to capture the consumer’s overall judgement of the excellence of the product. For this we used two indicators proposed by Dodds et al. (1991) and one proposed by Garvin (1984). The brand “awareness/associations” was measured using an indicator by Yoo et al. (2000), to which we have added three indicators intended to encompass a number of positive evocations that can be provoked by the store brand, in accordance with the information obtained during the exploratory phase of the study.

#### Table 1

Sample characteristics (N=405).

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<td>30–45</td>
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<td></td>
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<td>34.3</td>
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#### Table 2

Measurement scales.

**STORE IMAGE**

**Marketing image**

Markim1: It is convenient to do my shopping in this hypermarket  
Markim2: It offers a wide variety of products  
Markim3: It offers good quality products  
Markim4: It offers the services I am looking for (e.g., payment by instalments, return of products...)  
Markim5: It offers good prices

**Social image**

Socim1: It is a company that is concerned for the environment  
Socim2: It makes a commitment to society (donations, social campaigns, etc.)  
Socim3: It behaves ethically/honestly  
Socim4: It is concerned with the health and the welfare of consumers

**Strategic image**

Stratim1: It is a company with a lot of experience  
Stratim2: It adapts to local culture / customs (of the Basque Country)  
Stratim3: It is a company with a future (growing, making alliances, etc.)  
Stratim4: It makes an effort to launch new products and services

**COMPONENTS OF STORE BRAND EQUITY**

**Perceived quality**

Qual1: Brand X olive oil is of high quality  
Qual2: Brand X olive oil is trustworthy  
Qual3: Brand X olive oil gives me the result I am looking for

**Brand loyalty**

Loyal1: I consider myself to be a loyal consumer of Brand X olive oil  
Loyal2: When buying olive oil, my first option would be Brand X  
Loyal3: I intend to continue buying Brand X olive oil

**Brand awareness/associations**

Awass1: I can tell the “X products” brand from other brands in the hypermarket  
Awass2: I associate the “X products” brand with certain positive characteristics (e.g. good price)  
Awass3: Buyers of the “X products” brand are people who “know how to shop” (who shop with their heads)  
Awass4: Buying a brand that belongs to the X company gives me trust

**PRICE PERCEPTION**

Price1: The price of Brand X olive oil is affordable for most consumers  
Price2: I think the price paid for Brand X olive oil is appropriate
Price: We have based ourselves on the way in which the price is perceived in the mind of consumers (Yoo et al., 2000). For this we have used a two-item scale, which seeks to capture their affordability (character of affordable price), taking into account the fact that a higher value for this variable would mean that the consumer perceives it as being more affordable.

5. Results

Before testing the two theoretical models posed, we analysed the multidimensional structure of store image and store brand equity. The exploratory factor analysis (component analysis) and the confirmatory factor analysis made using the SPSS 15.0 and AMOS 7.0 programmes show a clear factorial structure in both constructs, according to the conceptual delimitation made in the first part of this study. It also suggested that it would be advisable to remove two of the items initially proposed: the first (stratim2: it adapts to local (Basque) culture/customs) because it significantly loads more than one store-image dimension (> 0.4), and the second (Markim5: it offers good prices) because it has a reduced factor loading (< 0.5).

To test the theoretical models we have used two structural equation models, making first an analysis of the measurement model using a confirmatory factor analysis and then an analysis of the structural model (Anderson and Gerbing, 1988). Note that to measure the “store image” and “store brand equity” constructs, and following the approach of other work (Babin and Boles, 1998: Villarejo and Sanchez, 2005), we have averaged their respective dimensions.

5.1. The relationship between store image and the components of store brand equity

The fit indices shown in Table 3 suggest good quality of fit of the measurement model (GFI, AGFI and CFI higher than 0.9 and RMSEA lower than 0.5). As for reliability, the Chronbach’s alpha and composite reliability rates show satisfactory values (over 0.7), as do the values of variance extracted (over 0.5). An examination of the weightings of the indicators shows that the $t$ values associated with each of them exceeds the critical values for the significance level of 0.05. In addition, these weightings are greater than 0.5, suggesting a considerable convergent validity.

As for the discriminant validity, it can be seen that the values of variance extracted are greater than the squares of the correlation between latent variables, in nearly all cases, suggesting discriminant validity and differentiated factors (Fornell and Larcker, 1981). This is not the case, however, in the variable pair “store image” and “awareness/associations”. For this reason, we have estimated an alternative model by setting the correlation between the two variables at 1 (Anderson and Gerbing, 1988). The test of Chi-Square differences indicates a significantly poorer fit in this case ($\Delta \chi^2 = 776.18; g.l. = 1; p < 0.000$), thus corroborating the existence of discriminant validity.

The structural model (Fig. 4), is comprised of two exogenous variables (store image and price) and three endogenous variables (perceived quality, brand loyalty and awareness/associations). The goodness of fit indices shows acceptable matching of the model: GFI: 0.983, AGFI: 0.910, NFI: 0.834, IFI: 0.919, TLI: 0.895, CFI: 0.917, RMSEA: 0.044. Although the Chi-Squared coefficient is significant ($\chi^2 = 148.89; p = 0.000$), it cannot be regarded as a reliable indicator of the goodness of fit in view of its sensitivity to samples exceeding 200 units (Bollen, 1989). The values attained by the structural coefficients are significant (level of significance of 0.05), as can be seen in Table 4.

Reliability rates achieved ($R^2$) by the three structural equations in the model are high: 0.758 for the equation relating awareness/associations with the equity’s antecedents, 0.796 for the one that relates perceived quality with the equity’s antecedents and, finally, 0.492 for the one that relates loyalty with the antecedents of store brand equity.

Table 3
First measurement model.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor</th>
<th>Quality</th>
<th>Loyalty</th>
<th>Store image</th>
<th>Price</th>
<th>Awareness/Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>0.872</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>0.884</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>0.880</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyal1</td>
<td>0.867</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyal2</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyal3</td>
<td>0.914</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Markim</td>
<td>0.762</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socim</td>
<td>0.730</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stratiim</td>
<td>0.809</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price1</td>
<td>0.776</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price2</td>
<td>0.864</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awass1</td>
<td>0.663</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awass2</td>
<td>0.848</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awass3</td>
<td>0.773</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awass4</td>
<td>0.847</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach's Alpha</td>
<td>0.908</td>
<td>0.911</td>
<td>0.790</td>
<td>0.796</td>
<td>0.817</td>
<td></td>
</tr>
<tr>
<td>Variance extracted</td>
<td>0.772</td>
<td>0.796</td>
<td>0.589</td>
<td>0.674</td>
<td>0.608</td>
<td></td>
</tr>
<tr>
<td>Composite reliability</td>
<td>0.910</td>
<td>0.921</td>
<td>0.811</td>
<td>0.805</td>
<td>0.860</td>
<td></td>
</tr>
</tbody>
</table>

| Correlations b     |          |         |         |         |         |
| Quality            | 1.00     | 0.692   | 0.726   | 0.720   | 0.778  |
| Loyalty            | 0.692    | 1.00    | 0.547   | 0.555   | 0.625  |
| Store Image        | 0.726    | 0.547   | 1.00    | 0.649   | 0.785  |
| Price              | 0.720    | 0.555   | 0.649   | 1.00    | 0.654  |
| Awareness/Associations | 0.778 | 0.625   | 0.785   | 0.654   | 1.00   |

| Chi-Squared:       | 114.244 | df     | 80      | GFI: 0.952 | RMSEA: 0.33 | AGFI: 0.928 | CFI: 0.957 |

a ($^*$) One factor loading parameter in each set of loadings designed to measure the same factor has been constrained to 1.

b ($^*$) Chi-Squared difference setting the correlation between the two variables at 1 (df: 1; $p < 0.000$).
In short, it can be seen that all coefficients are significantly different to zero and are positive, as posited in the theoretical model. It is worth noting the important influence that store image has on awareness/associations and perceived quality and, to a lesser extent, on brand loyalty. Hypotheses H1a, H1b and H1c are therefore accepted.

With regard to the influence of the perception of affordable price on the components of the value, all the standardised coefficients are significantly different to zero. The sign of the relationship between price and the perceived quality is, however, opposite to the proposed model. This result may be due to the fact that people who see store brands as being more affordable are precisely those who have greatest contact with them; the greater that contact, the more convinced they are of their quality. In short, Hypotheses H3b and H3c are accepted and H3a is rejected.

### 5.2. The relationship between the dimensions of store image and store brand equity

The results of the confirmatory analysis shown in Table 5 indicate an acceptable fit of the measuring model. The reliability indices calculated indicate that the items proposed for measuring the different constructs give consistent measurements. At the same time, all the standardised loads can be seen to be significant and substantial, thus indicating convergent validity.

As for the discriminant validity, we see that in nearly all cases the values of variance extracted are greater than the squares of the correlation of the latent variables. However, there is a series of variable pairs (marketing image/strategic image; marketing image/store brand equity; social image/strategic image and strategic image/store brand equity), which do not match this criterion. For this reason, we have estimated an alternative model by setting the correlation between these variables at 1. The fit of the alternative model proves to be, in all cases, significantly lower than the original model (Table 5). This all leads us to accept the existence of discriminant validity.

The second structural model (Fig. 5) consists of four exogenous variables (the three dimensions of the store image plus price) and an endogenous variable (store brand equity).

Fit measures show an acceptable level of fit in general: GFI: 0.948, AGFI: 0.924, NFI: 0.782, IFI: 0.905, TLI: 0.871, CFI: 0.900, RMSEA: 0.039. At the same time, an assessment of the weightings of the structural coefficients of the model (Table 6), shows that the relationship between the social image and the store brand equity is

---

**Table 4**

<table>
<thead>
<tr>
<th>Causal relationship</th>
<th>Standardised loading</th>
<th>t value</th>
<th>Hypothesis</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store image → Quality</td>
<td>0.410</td>
<td>5.696</td>
<td>H1a</td>
<td>Supported</td>
</tr>
<tr>
<td>Store image → Loyalty</td>
<td>0.263</td>
<td>3.461</td>
<td>H1b</td>
<td>Supported</td>
</tr>
<tr>
<td>Store image → Awareness/Associations</td>
<td>0.571</td>
<td>10.040</td>
<td>H1c</td>
<td>Supported</td>
</tr>
<tr>
<td>Price → Quality</td>
<td>0.567</td>
<td>7.789</td>
<td>H3a</td>
<td>Not supported</td>
</tr>
<tr>
<td>Price → Loyalty</td>
<td>0.499</td>
<td>6.473</td>
<td>H3b</td>
<td>Supported</td>
</tr>
<tr>
<td>Price → Awareness/Associations</td>
<td>0.381</td>
<td>6.893</td>
<td>H3c</td>
<td>Supported</td>
</tr>
</tbody>
</table>

---

**Fig. 4. First structural model.**
not statistically significant at a significance level of 0.05. ($t$-value less than 1.96). There are therefore indications to improve the initial structural model, for which reason we eliminated the structural relationship mentioned and re-estimated the model (Fig. 6).

The measurements of the quality of the global fit of the new model are similar to those obtained in the previous model: GFI: 0.953 AGFI: 0.923, NFI: 0.818, IFI: 0.912, TLI: 0.874, CFI: 0.908, RMSEA: 0.043. The structural relations, however, are all significant in this case, at a level of significance of 0.05 (Table 6). The reliability index of the structural equation ($\alpha$), which means that the antecedents of the equity considered in this model explain 79.4% of the store brand equity. This is, therefore, an acceptable fit.

In short, the marketing image and the strategic image present standardised loads that are significantly different to zero. The sign is positive in both cases and they show a similar importance (with weightings of around 0.3). We therefore accept hypotheses H2a and H2c and reject H2b.

### 6. Discussion and theoretical implications

There has been considerable development in the way brands are managed in the field of retailing. Companies are making significant efforts to create ever richer and more differentiated store identities, focusing not only on their traditional commercial attributes but also corporate features. At the same time, distributor brands have been the subject of a more specialist treatment. Many companies now see them as a prime competitive tool, approach for studying the relationship between store image and distributor brands is complex and may be addressed in terms of image, value and loyalty, among other perspectives. This work seeks to explain the way in which store image contributes to increase store brand equity, in order to extract management implications targeted at increasing the value provided by the retailer to the market.

To do this, we have developed two theoretical models that show, on the one hand, the components of the store brand equity through which the store image generates value and, and the other, the dimensions of store image that most influence the equity of these brands. The price perception has also been included as an antecedent of the equity in both models in order to ensure that they are sufficiently specified.

We consider that this study makes relevant contributions to research on store brands: on the one hand, it proposes a new approach for studying the relationship between store image and distributor brand equity, based on the model of Aaker (1991), which provides an integrating approach to the concept of brand equity through its components. This approach has also enabled us, to examine a relationship that has not been studied in previous works: the relationship between store image and loyalty to store brands. At the same time, the study shows the relationship between different dimensions of store image and store brand equity, where this image is viewed from a perspective not previously considered in this type of study, since it includes corporate dimensions (social and strategic).

The empirical research carried out in the hypermarket sector of Gipuzkoa (Spain) clearly supports the majority of the proposed hypotheses. The results obtained shows the positive effect store image has above all components of store brand equity (brand awareness/associations, perceived quality and brand loyalty), and in this aspect it coincides with other works, which have analysed,
in isolation, some of the relations considered in our study (Cudmore, 2000; Semeijn et al., 2004; Vahie and Paswan, 2006). One can also see the special incidence of store image on awareness and associations of the store brand.

With regard to the effect that the different dimensions of store image have on store brand equity, our work shows the existence of a positive relationship between the marketing image of the store and the store brand equity, thus corroborating what other authors had previously suggested (Vahie and Paswan, 2006). However, we have also identified a positive relationship between the strategic image of the store and store brand equity. This may be due to the fact that consumers who perceive a store as a competent firm, with accumulated know-how and a capacity to innovate in order continuously to adapt the market, may also perceive that it has a greater capacity to develop high-quality own brands that satisfy their desires and needs. We consider this contribution to be of interest given that it has not previously been studied in other works.

However, we have not found sufficient empirical evidence to propose that there exist a significant relationship between the social image of the store and the equity of their own brands. In other terms, ethical aspects and aspects of social responsibility of the store, once isolated from other dimensions of image, do not appear to impact the equity of their own brands.

Nonetheless, we consider that a more indirect effect could occur through the global image of the store, taken as the global impression resulting from a set of inter-related associations of a commercial, social and strategic nature. As for the price variable, the result shows that the affordability of the price of store brands positively influences their equity.

### 7. Managerial implications

The results obtained lead us to propose a management approach consisting of strengthening the components of the store...
brand equity through suitable management of the store image, in accordance with an integrated and coherent long-term strategy.

With regard to the brand associations, the company can try to insert the store image into the set of associations that make up the identity of the store brand. The store image is not limited to its marketing dimension, but may include organisational associations, closely linked to vision, mission and corporate values. We are referring to questions such as proximity to customers, innovation, experience and success. These organisational associations, as well as transmitting credibility, allow store brands to associate themselves with the values and culture of the store, ultimately generating positive associations, which may have an important emotional character, and, which contribute to increase the equity of these brands.

In order for this image to be effectively transmitted, the relationship between the store and the store brand needs to be shown, through communication actions that highlight the close relationship between the store brand and the corporate associations it is intended to provoke.

With regard to quality, this study shows that a good store image can contribute to increase the perceived quality of store brands, thus supporting efforts made by the retailer to offer good quality in its products. This is quite important, since as Corstjens and Lal (2000) have pointed out, store brands will mark the establishment out if consumers consider them to be quality brands, which leads to an increase in the costs of changing to other retailers and causes loyalty to the establishment.

At the same time, this research also suggests that store image contributes to increase store brand loyalty. In this regard, store image can be seen as a reinforcement for marketing programmes launched to stimulate loyalty among consumers to these brands and, ultimately, to the establishment.

In short, the store can take advantage of the effect of its image above all the components of the store brand in increasing the value provided to the market. The actions undertaken for this purpose form part of the set of actions geared towards increasing the appeal of store brands and of the store itself.

8. Limitations and future research

In this work we have tried to examine the causal relations between different latent variables. However, given that the study is transverse and non-longitudinal in nature, we cannot guarantee that the cause precedes the effect. Nonetheless, although the criteria of causality are not strictly met, the relations studied are based on a theoretical rationality, which to a certain extent makes up for this limitation (Hair et al. 1998). In reference to the measurement of constructs in the model, it would have been desirable to perform an even more complete measurement of store image, also including store personality. However, given the complexity involved in measuring this construct and the need to avoid making the questionnaire overly long, we chose to leave it out. At the same time, this study was restricted to the province of Gipuzkoa and to a given retail format, type of distributor brand and product category. We are aware of the limitations this involves for extrapolating the results to all distributor brands. It would therefore be of interest to extend the research to other retail formats, types of distributor brands and product categories, to study the differences that might occur depending on the variables taken into consideration. Finally, this work must be considered as one of several possible ways of understanding and studying the relationship between the store and store brands, and we therefore consider it
useful to incorporate other perspectives of analysis that allow a more in-depth understanding of this relationship.

Acknowledgements

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References