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Consumer responses to brand extensions: a comprehensive model

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Abstract

Purpose – This paper aims to understand the reciprocal spill-over effects of brand extensions by testing a comprehensive model that gathers both the brand extension evaluation process and the later influence on brand image.

Design/methodology/approach – Data were obtained from 699 face-to-face interviews conducted in Spain. Structural equation modelling was used to test the proposed hypotheses.

Findings – The results indicate that brand extensions have feedback effects on brand image depending on the attitude toward the new product and perceived image fit. Consumer attitude depends, in turn, on initial brand associations, perceived category fit, perceived image fit and consumer innovativeness. Brand familiarity also shows indirect effects.

Research limitations/implications – The model should be tested with extensions of the same (line extensions) or different categories. It is also necessary to analyse non-fictional products, and to take different moderating effects into account.

Practical implications – The results suggest how to protect the brand image from unsuitable extension strategies. The paper shows what kind of perceived fit is more important for consumers as well as the direct and indirect role of several variables.

Originality/value – The paper extends previous research by proposing a complete framework that considers the factors that influence either the attitude to the extension or the attitude to the extended brand.

Keywords Brand extensions, Brand image, Brand equity, Consumer behaviour, Spain

Paper type Research paper

Introduction

Brand extension is a strategy that many companies follow with the aim of benefiting from the brand knowledge achieved in the current markets (Aaker and Keller, 1990; Milberg *et al.*, 1997). When a new product is marketed under a well-known brand name, failure rates and marketing costs are reduced (Milewicz and Herbig, 1994; Keller, 2003). Keller (2003) states that more than 80 per cent of firms resort to brand extensions as a way of marketing goods and services.

The support that the brand gives to the new product often leads to a change in the brand image associations. Both the affection and the specific knowledge associated with the brand and the new product are interchanged in the consumers' mind (Czellar, 2003).

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This feedback process can increase the memory and strength of brand associations (Morrin, 1999; Aaker, 2002) and, thus, improve the positioning of the brand (Park *et al.*, 1986). Nevertheless, several authors indicate that the dilution of current beliefs is more likely (Tauber, 1988; Ries and Trout, 1993; John *et al.*, 1998). This dilution effect can take place even though the extension is not related to negative information (Morrin, 1999; Ahluwalia and Gürhan-Canli, 2000; Martínez and Pina, 2003). Virgin, for instance, is a company that has grown through extensions into the audiovisual sector, retailing, alcoholic drinks, passenger transport (by railway and air) and space tourism, among others. However, market research studies suggest that customers' perceptions of the Virgin brand mainly depend on the performance of the airline, which implies a constant threat of image dilution (Hughes, 2007).

The influence of brand extension on brand image is explained by several theories, most of them coming from Psychology. According to the "associative network theory", brand image may be understood as a mental scheme formed by a network of concepts (nodes) interconnected by linkages or associations (Anderson, 1983; Morrin, 1999). Park *et al.* (1993) explain that extensions which are coherent with the brand schema will not lead to image dilution (assimilation process). On the other hand, the brand schema will be modified to accommodate examples that are far from current brand attitudes and beliefs (accommodation process). Following Weber and Crocker's (1983) work, Gürhan-Canli and Maheswaran (1998) suggest that the image modification could be reflected in the formation of a mental subcategory inside the brand scheme (sub-typing model) or in a complete modification of brand associations (conversion model).

The sub-typing or conversion processes may occur when perceived fit or typicality between the extension category and the brand is low. However, it is just possible that brand attitudes and beliefs would always change because of the new information, which is called the bookkeeping model (Weber and Crocker, 1983; Loken and John, 1993; Gürhan-Canli and Maheswaran, 1998). Consumers could react according to the bookkeeping model when the information on the new product is highly accessible. Regardless of perceived fit, higher accessibility gives rise to an image enhancement, whereas lower accessibility has a negative effect on brand evaluations (Ahluwalia and Gürhan-Canli, 2000).

The brand extension literature shows that brand extensions can affect both the general brand associations (Martínez and de Chernatony, 2004) and the beliefs in specific attributes (Keller and Aaker, 1992; Loken and John, 1993). The beliefs related to the most representative product of the brand, or flagship product, are more resistant to dilution (John *et al.*, 1998; Chang, 2002), as well as the perceptions linked to the brand personality (Diamantopoulos *et al.*, 2005).

Most previous research on brand extensions develops experimental designs, focusing on a reduced number of variables (e.g. Loken and John, 1993; John *et al.*, 1998; Alexander and Colgate, 2005). Some authors have tested models through structural equation modelling (e.g. Bhat and Reddy, 2001; Völckner and Sattler, 2006) although they concentrate on consumer attitude toward brand extensions and not on reciprocal spillover effects. According to literature, brand extensions may give rise to both a "forward" effect from the parent brand to the new product and a "feedback" or "backward" effect from the new product to the parent brand (Milberg *et al.*, 1997;

Balachander and Ghose, 2003). Neglecting this potential backward effect affords a limited view of consumer behaviour and may lead to inappropriate marketing actions.

With the goal of better understanding the way that extensions influence brand image, our work proposes and validates a theoretical model that, according to the previous literature, integrates the most relevant variables. With the exception of the contribution of Völckner and Sattler (2006), previous models only focus on a few variables, which makes it difficult to determine how the consumers' responses to brand extensions are generated. Furthermore, the proposed model considers both the brand image before the extension and the image variation, which is a step forward in literature. As well as brand image, we will analyse the effects of brand familiarity, attitude to the extension, extension-brand fit (category and image fit), perceived difficulty in manufacturing the extension product and consumer innovativeness. Hence, the study expands previous research by testing a comprehensive model that gathers both the brand extension evaluation process and the later influence on brand image. This model can help brand managers to protect their brands from unsuitable brand extensions by showing the main determinants of spillover effects and the direct and indirect effects of the specific variables. Relationships that have been individually supported in previous works could be rejected when considering complex models with several dependent and independent variables.

The study is structured in four sections. The next section contains a brief review of the literature to justify the theoretical model and the relations established in the hypotheses. The third section describes the methodology used to validate the model, and the results are reported in the fourth section. Finally, we address the conclusions and managerial recommendations.

Proposed model and hypotheses

The proposed model helps us to understand the influence of brand extensions on brand image. For this reason, the model includes the variables with the greatest impact on extension attitude (Aaker and Keller, 1990; Hem *et al.*, 2003). This attitude will determine the development of the brand image (Lane and Jacobson, 1997), affecting the current associations.

The model stems from the initial brand image and attempts to identify the main relations and interactions that follow the launching of the brand extension and its potential effects on the established associations. Generally, consumer attitudes toward brand extensions can depend on factors related to brand associations, extended category, perceived fit, and consumer characteristics (Czellar, 2003; Reast, 2005; Völckner and Sattler, 2006). Hence, two brand knowledge factors, brand familiarity and initial brand image, are considered. In relation to the new product and its fit with the parent brand, we consider perceived difficulty in manufacturing, perceived category fit and perceived brand image fit. Extension attitude and consumer innovativeness are also taken into consideration.

Whereas brand associations and fit have been examined in nearly every study on brand extensions, perceived difficulty and consumer innovativeness have received lesser attention. Since Aaker and Keller's (1990) fundamental study and all subsequent replications (Barrett *et al.*, 1999) analysed perceived difficulty with inconclusive results, it seems necessary to study this variable more in depth. On the other hand, the whole literature on brand extensions relies on the assumption that a known brand

reduces the risk associated with buying new products (Smith and Park, 1992), and consumer innovativeness reflects the consumer's risk aversion. The proposed effects of these variables and the remaining ones are depicted in Figure 1.

The first variable included in our model is brand familiarity. This variable is closely related to the dimension of brand equity labelled as awareness by Aaker (1996), since familiar brand names usually present high awareness. Moreover, it is also akin to the brand image construct, which refers to the different "perceptions about a brand reflected as associations existing in the memory of the consumer" (Keller, 1993). Direct effects on extension attitude are expected for brand familiarity as well as indirect ones through brand image.

First, individuals will have a better initial image of the brands they are familiar with (Low and Lamb, 2000; Lemmink *et al.*, 2003). By means of a "halo effect", the impressions of familiar attributes are used to form precise opinions on brands (Reynolds, 1965) and develop more complete knowledge structures (Alba and Hutchinson, 1987; Grime *et al.*, 2002). Furthermore, familiarity indirectly reflects the experience with a brand (Alba and Hutchinson, 1987), presenting a clear relationship between experience and brand image (Hoek *et al.*, 2000).

Familiarity can also have a direct effect on brand extension evaluations. Consumers are more inclined to buy products of brands they have previously consumed (Swaminathan, 2003) and know better, unless the experience has been unsatisfactory (Swaminathan *et al.*, 2001). Although some works have failed to prove that familiarity affects consumer attitude to an extension (Glynn and Brodie, 1998) and to the extended brand (Diamantopoulus *et al.*, 2005), we hypothesise:

- H1. The greater the familiarity of the core brand, the more positive the initial brand image.
- H2. The greater the familiarity of the core brand, the more favourable the attitude to the extension.

Brand image is an essential factor for understanding consumer attitude toward brand extensions, since the credibility of the new product increases when brand perceptions become more favourable (de Ruyter and Wetzels, 2000). If the brand image consists of

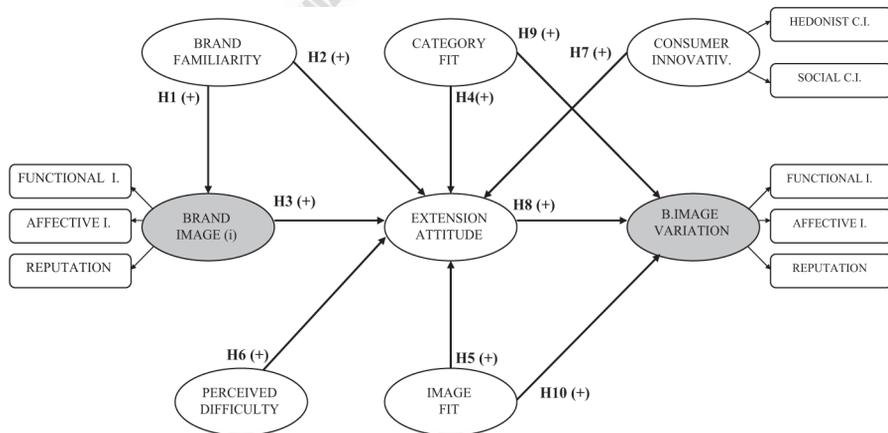


Figure 1. Proposed model to analyse the effect of brand extension strategy on brand image

associations such as a high-perceived quality, the extension attitude will be better (van Riel *et al.*, 2001; Völckner and Sattler, 2006). In the same vein, the extension attitude is positively related to the perceptions of reputation (Hem *et al.*, 2003), prestige (Park *et al.*, 1991) and the consumers' affection for the brand (Sheinin and Schmitt, 1994). In the case of corporate and service brands, a positive image also clearly generates favourable perceptions of the new products (Brown and Dacin, 1997; de Ruyter and Wetzels, 2000). Given that the extension leverages the current brand associations, the better the initial brand image the more positive will be the consumers' response. Therefore:

H3. The more positive the initial brand image, the more favourable the attitude to the extension.

If consumers perceive a high fit between the brand and the new product, the brand leveraging increases and the potential negative effects are less likely (Czellar, 2003). Some authors state that consumers can consider a category fit or an image fit (Bhat and Reddy, 2001; Grime *et al.*, 2002; Czellar, 2003). Thus, individuals can believe that the new product is physically similar to the other products of the brand (category fit) or coherent with the general brand associations (image fit) (Grime *et al.*, 2002; Czellar, 2003). Whatever the case, the consistency between cognitive elements and the similarity among various stimuli ease and improve consumers' evaluations (Aaker and Keller, 1990; Eagly and Chaiken, 1993). Brand image-perceived fit interaction effects are revealed in the literature (Boush *et al.*, 1987; Aaker and Keller, 1990) as well as direct effects (Völckner and Sattler, 2006). The next hypotheses deal with the direct effects of perceived fit dimensions on extension evaluation.

As commented above, perceived category and image fit will directly affect the consumer attitude to the extension. Generally, the assessment of an extension will be more positive as perceived closeness with the brand grows (Aaker and Keller, 1990; Völckner and Sattler, 2006), even in the case of non-prestige brands (Park *et al.*, 1991). However, consumers believe that extensions to non-related categories are not very reliable and offer low quality, which causes a negative assessment (Kirmani *et al.*, 1999). According to the literature, a high-perceived category or image fit makes success more likely (Boush *et al.*, 1987; Boush and Loken, 1991; Park *et al.*, 1991). The important thing is to get the consumers to relate the new product to the brand, independently of the kind of closeness. This discussion leads to the following hypotheses:

H4. The greater the perceived category fit between the extension and the core brand, the more favourable the attitude to the extension.

H5. The greater the perceived image fit between the extension and the core brand, the more favourable the attitude to the extension.

Another variable included in our model is perceived difficulty in manufacturing or offering a new good or service. This variable has been analysed in numerous works, although it is not clear whether it influences consumer behaviour or not (Barrett *et al.*, 1999; van Riel *et al.*, 2001). Moreover, present research does not clarify whether this influence is positive (Aaker and Keller, 1990; van Riel and Ouwersloot, 2005) or negative (Semeijn *et al.*, 2004). This diversity of results reflects that the influence of difficulty in manufacturing might depend on the study settings and the variables interacting with such difficulty.

Generally, consumers who think that the new product category requires little manufacturing effort may question its advisability (Aaker and Keller, 1990). They could even think that high-quality brands are trying to make fast money by overpricing trivial products (Aaker and Keller, 1990; van Riel *et al.*, 2001). In a sense, easy-to-make extensions could resemble downscale extensions, where the brand stretches down by offering lower price-quality products (Kirmani *et al.*, 1999). Consequently, we posit:

H6. The greater the perceived difficulty in manufacturing the new product, the more favourable the attitude to the extension.

The last variable of our model to explain attitude to the extension is consumer innovativeness, a concept that represents the consumers' propensity to buy new products and consider new ideas (Roehrich, 2004). Since innovative people are more risk-prone (Klink and Smith, 2001; Hem *et al.*, 2003), they show a better attitude toward brand extensions, whatever their perceived fit (Klink and Smith, 2001). In this sense, some authors have found that higher consumer innovativeness increases perceived quality and purchase intention of new services (Hem *et al.*, 2003; Siu *et al.*, 2004) and tangible products (Völckner and Sattler, 2006).

Rogers (1983) claims that one of the most salient traits of consumer innovators is the comfort they gain from taking risk. Unlike later adopters, highly-innovative individuals find far extensions appealing (Xie, 2008) and, consequently, do not mind trying products that get away from the company's core business. As a matter of fact, they should be more prone to try new products regardless of the degree of brand knowledge or perceived fit. Consequently, we posit:

H7. The greater consumer innovativeness, the more favourable the attitude to the extension.

The following hypotheses relate to the feedback effect on brand image. Because of the new information, the brand schema could vary its structure of nodes and links (Morrin, 1999). There is no doubt that most brand associations will remain stable after stretching to new categories, being the final perceptions mainly determined by the initial ones (Lee and Ulgado, 1993; Martínez and Pina, 2003). However, product introductions in the marketplace involve providing consumers with information, which not always fits with the initial beliefs and feelings about the brand.

As elucidated by previous research, the attitude to the extension is a major driver of spillover effects from the extension to the parent brand. Low quality or negatively assessed extensions will entail a detriment of brand image (Chang, 2002; Martínez and Pina, 2003), diluting both general and specific beliefs (Martínez and de Chernatony, 2004). Diamantopoulos *et al.* (2005) found that brand personality is more dilution-resistant, although any brand association is exposed to the risk of dilution. A way of reducing this risk is to strengthen the attitude to the extension, given that consumers who are satisfied with the extension are usually satisfied with the brand (Alexander and Colgate, 2005). The following hypothesis is based on these arguments.

H8. The better the attitude to the extension, the more favourable the feedback effect on the extended brand.

The literature reveals that the attitude to an extended brand directly depends on the degree of fit with the extension (Grime *et al.*, 2002). The introduction of extensions far from the core business will involve losing brand differentiation and credibility, whereas extensions to related markets will avoid potential damage (Aaker, 2002).

Some authors like Milberg *et al.* (1997) have proved that low-fit extensions generate negative feedback in terms of attributes or image. Similarly, Lee and Ulgado (1993) verified that fit has a positive effect on the image of service firms, whereas Martínez and de Chernatony (2004) verified the same for tangible product extensions. Other works equally suggest that the impact of brand extensions on the parent brand is directly related to similarity (Martínez and Pina, 2003) or image fit (Loken and John, 1993; John *et al.*, 1998). All in all, we expect a more positive feedback effect provided the brand stretches coherently with either its image or current products.

H9. The greater the perceived category fit between the extension and the core brand, the more favourable the feedback effect on the extended brand.

H10. The greater the perceived image fit between the extension and the core brand, the more favourable the feedback effect on the extended brand.

Methodology

An empirical study was conducted to contrast the hypotheses and validate the model displayed in Figure 1. Following the usual procedures, we utilised real brands and realistic hypothetical extensions (Aaker and Keller, 1990; van Riel *et al.*, 2001; van Riel and Ouwersloot, 2005) that were previously selected through three pre-tests. Below, we explain these and other aspects related to the methodology applied.

Pre-tests

In line with previous research, a sample of undergraduates was employed in the pre-tests (Sheinin and Schmitt, 1994; Kim, 2003). The specific brands and extensions were selected by means of Wilcoxon tests, which were necessary due to the lack of normality in the data.

The aim of the first pre-test, conducted with 91 students, was to choose brands in three sectors (fast moving consumer goods, durable consumer goods and services) that were familiar (F) to individuals and had a different image perception (I). Familiarity is an essential requisite to guarantee that consumers have a clear image to evaluate (Low and Lamb, 2000). Two questions were thus formulated to assess those concepts in seven-point Likert scales (1 = Totally unfamiliar/7 = Very familiar; 1 = Bad image/7 = Excellent image) for a total of 11 brands. According to the results, *Colgate* and *Signal* ($F_C = 6.38$; $F_S = 5.50$), *Nike* and *Puma* ($F_N = 6.56$; $F_P = 5.64$), *Telefónica Movistar* and *Amena* ($F_T = 6.64$; $F_A = 6.27$) were chosen as familiar brands. The image is significantly different in toothpaste brands ($I_C = 5.74$; $I_S = 4.96$; $Z = -4.618$; $p < 0.00001$), sports brands ($I_N = 6.21$; $I_P = 5.10$; $Z = -5.449$; $p < 0.00001$) and mobile phones ($I_T = 5.67$; $I_A = 4.88$; $Z = -4.001$; $p < 0.00001$).

The second and third pre-tests, where 98 and 81 students, respectively, participated, were aimed at finding two extensions –one for each sector– with differences in perceived fit. Both perceived category fit (CF) and brand image fit (IF) were considered (Bhat and Reddy, 2001) in two Likert scales (1 = Not at all similar/7 = Very similar; 1 = Non-coherent/7 = Very coherent). For the toothpaste brands, “sugar-free

whitening tooth decay-preventing sweets” and “sunglasses” were selected. The first showed a higher perceived fit than the second for *Colgate* ($CF_1 = 5.36$; $CF_2 = 1.31$; $Z = -5.341$; $p < 0.00001$) ($IF_1 = 5.69$; $IF_2 = 1.54$; $Z = -5.339$; $p < 0.00001$) and *Signal* ($CF_1 = 4.86$; $CF_2 = 1.19$; $Z = -5.120$; $p < 0.00001$) ($IF_1 = 5.19$; $IF_2 = 1.25$; $Z = -5.019$; $p < 0.00001$). On the other hand, for the sports brands, we chose “skis” as a close extension and “DVD players” as a far extension, both from the perspective of product category of *Nike* ($CF_1 = 3.33$; $CF_2 = 1.28$; $Z = -5.120$; $p < 0.00001$) and *Puma* ($CF_1 = 3.32$; $CF_2 = 1.14$; $Z = -4.910$; $p < 0.00001$). Similarly, there were statistical differences between the image fit of the extensions for *Nike* ($IF_1 = 4.23$; $IF_2 = 1.36$; $Z = -5.561$; $p < 0.00001$) and *Puma* ($IF_1 = 3.89$; $IF_2 = 1.14$; $Z = -5.113$; $p < 0.00001$). Finally, “telecommunication on-line courses” and “insurance” were the service extensions selected. Specifically, the perceived category and image fit were statistically different for *Telefónica Movistar* ($CF_1 = 4.67$; $CF_2 = 1.84$; $Z = -5.475$; $p < 0.00001$) ($IF_1 = 4.72$; $IF_2 = 1.72$; $Z = -5.543$; $p < 0.00001$) and *Amena* ($CF_1 = 3.73$; $CF_2 = 1.76$; $Z = -4.283$; $p < 0.00001$) ($IF_1 = 4.27$; $IF_2 = 1.84$; $Z = -4.561$; $p < 0.00001$).

Sample and procedure

Subsequent to the pre-tests, we elaborated 12 questionnaires with a different brand-extension combination. On the first page, individuals had to indicate their consumer innovativeness and answer some questions about the corresponding brand (familiarity and image) and product category (perceived difficulty). Then, on the second page of the questionnaire, respondents were required to imagine that the specific brand launched the extension. Questions then assessed the fit, the respondents' attitudes towards the extension and the brand image, supposing the existence of the new product category. No additional information about the products' attributes was provided in order to avoid bias that could defeat the objective of the study (Bhat and Reddy, 2001).

The surveys were answered by a total sample of 720 individuals (699 valid cases) in a Spanish city, which is sometimes considered as a test market for products aimed at Spain. The respondents were approached by a team of interviewers in different parts of the city, on different days and at different times during May 2005. By following a quota sampling procedure, the sample was required to match the population structure by sex (50.9 per cent women and 49.1 per cent men) and age (46.5 per cent 26-45 years, 33.3 per cent 16-25 years, 20.2 per cent 46-64 years). These demographical variables may be strong predictors of changes in attitudes and behavior (Hansman and Schutjens, 1993) and, therefore, should be controlled to get adequate variance in the data. Table I shows the type of questionnaires used in our research and the specific number of individuals who satisfactorily responded to each. No individual answered more than one questionnaire.

Measures

Variables were measured through seven-point Likert scales by requesting individuals either to state their level of agreement with the specific statement (1 = Totally disagree, 7 = Totally agree) or directly assess the variable (e.g. 1 = Not at all familiar, 7 = Very familiar). In all cases, items were extracted or based on the literature. In order to avoid potential order effects (Klink and Smith, 2001), perceived

Table I.
Type and number of
questionnaires

N°	Brand	Extension (high fit)	N°	Brand	Extension (low fit)
49	Colgate	Sugar-free whitening tooth decay-preventing sweets	50	Colgate	Sunglasses
49	Signal	Sugar-free whitening tooth decay...	48	Signal	Sunglasses
48	Nike	Skis	49	Nike	DVD players
49	Puma	Skis	49	Puma	DVD players
74	Telefónica Movistar	Telecommunication online courses	80	Telefónica Movistar	Insurance
79	Amena	Telecommunication online courses	75	Amena	Insurance

difficulty was assessed prior to brand characteristics and fit. For the same reason, final image was measured once the individuals had formed an opinion about the brand extension.

Table II shows the scales used for each factor. First, consumer innovativeness was measured with the items proposed by Roehrich (1994), who considers a dual perspective, “hedonistic” and “social”. Perceived difficulty was assessed through an item used by Aaker and Keller (1990) and two additional items coherent with the concept. For brand familiarity, we used Dawar’s scale (Dawar, 1996), whereas the scale validated by Martinez *et al.* (2004) was employed to assess initial and final brand image. This scale utilises items from several works (Martin and Brown, 1990; Weiss *et al.*, 1999) which attempt to assess tangible (functional image) and intangible (affective image) attributes and benefits, as well as the global attitude to the brand (reputation).

The distinction made by several authors between category fit or similarity and image fit or consistency with brand image (Park *et al.*, 1991; Bhat and Reddy, 2001; Grime *et al.*, 2002) was used to measure perceived fit. Thus, a series of items that assess fit from both perspectives (Aaker and Keller, 1990; Taylor and Bearden, 2002) were chosen. Finally, extension attitude items were suggested by authors like Aaker and Keller (1990) or Pryor and Brodie (1998) considering both the general assessment of the new product and purchase intentions.

Results

The collected data were analysed by means of structural equations methodology, assessing both the measurement and the structural model (Kline, 2005). The structural model allows us to know whether there is evidence to reject the proposed hypotheses, although previously the measurement model has to evaluate the psychometric properties of the scales in terms of unidimensionality, reliability and validity. Furthermore, some fit indicators show whether the measurement and structural models explain the collected data with relative precision (Hair *et al.*, 1998).

Scale validation

Prior to analysing all the variables as a whole, we studied whether initial brand image, final brand image, consumer innovativeness and perceived fit should be considered as multidimensional or unidimensional factors, since the distinction between the

Scale	Measured concept
Consumer innovativeness. Roehrich (1994)	Hedonist innovativeness (HINN) HINN1: I am more interested in buying new than known products HINN2: I like to buy new and different products HINN3: New products excite me Social innovativeness (SINN) SINN1: I am usually among the first to try new products SINN2: I try new products before my friends and neighbours SINN3: I know more than others about the latest new products
Perceived difficulty (DIFF). Aaker and Keller (1990)	DIFF1: Difficulty in designing and making the product DIFF2: Complex techniques or knowledge are needed DIFF3: Specialised resources are needed (personnel, facilities. . .)
Brand familiarity (FAMI). Dawar (1996)	FAMI1: Familiarity with the brand's products FAMI2: Purchase frequency of the brand's products FAMI3: Knowledge of the brand's products
Brand image. Martínez <i>et al.</i> (2004). Based on: Martin and Brown (1990) Aaker (1996); Weiss <i>et al.</i> (1999); Villarejo (2002)	Functional image (FUIM) (initial/final) FUIM1i/FUIM1f: The products have a high quality FUIM2i/FUIM2f: The products have better characteristics than competitors' FUIM3i/FUIM3f: The products of the competitors are usually cheaper Affective image (AFIM) (initial/final) AFIM1i/AFIM1f: The brand is nice AFIM2i/AFIM2f: The brand has a personality that distinguishes it from competitors AFIM3i/AFIM3f: It is a brand that does not disappoint its customers Reputation (REIM) (initial/final) REIM1i/REIM1f: It is one of the best brands in the sector REIM2i/REIM2f: The brand is very consolidated in the market
Perceived fit. Aaker and Keller (1990); Taylor and Bearden (2002)	Category fit (CAFI) CAFI1: The extension is similar to the brand's products CAFI2: The firm's resources are helpful to make the product extension Image fit (IMFI) IMFI1: The product extension fits with the brand image IMFI2: Launching the extension is logical for the company IMFI3: Launching the extension is appropriate for the company
Extension attitude (EXAT). Aaker and Keller (1990); Pryor and Brodie (1998)	EXAT1: Favourable attitude towards the extension EXAT2: Perceived quality of the extension EXAT3: Likelihood of trying the extension

Table II.
Scales used in the
questionnaires

proposed dimensions (e.g. hedonistic and social innovativeness) could be statistically non-advisable.

Through a previous analysis with SPSS 13.0, we detected a weak item-total correlation of FUIM3i (corr. = 0.281) and FUIM3f (corr. = 0.296) with the respective dimensions of functional image. After eliminating them, we conducted an explanatory factor analysis for the unidimensional and multidimensional models using the EQS 5.b and ERLS (elliptical re-weighted least squares) estimation method. The initial image, final image and perceived fit scales proved to be reliable in both models (Jöreskog and Sörbom, 1993), although it was advisable to eliminate HINN1 related to consumer innovativeness. Although the factor loadings exceeded the cut point $\lambda_U = 0.540$; $\lambda_M = 0.673$, the R^2 coefficients ($R^2 = 0.292$; $R^2 = 0.453$) were below those recommended in the literature (Hair *et al.*, 1998).

Once the scales had been properly refined, we proceeded to compare the unidimensional and multidimensional models through several indicators (Hair *et al.*, 1998; Kline, 2005). Tables III and IV display the coefficients obtained, which clearly favour the consideration of independent dimensions for all the factors analysed. The only indexes in which the unidimensional model surpasses the multidimensional one are PNFI and PGFI for the factors of initial brand image (PNFI = 0.511 < 0.638;

Table III.
Indicators of the alternative models of brand image (initial and final)

Comparative indicators	Initial image		Final image	
	Unidimen.	Multidimen.	Unidimen.	Multidimen.
χ^2	126.181	72.177 ^a	211.559	51.082 ^a
RMSR (Root mean square residual)	0.047	0.034 ^a	0.053	0.027 ^a
ECVI (Expected cross-validation index)	0.221	0.152 ^a	0.343	0.122 ^a
NCP (Noncentrality parameter)	112.181	61.177 ^a	197.559	40.082 ^a
SNCP (Scaled noncentrality parameter)	0.160	0.088 ^a	0.283	0.057 ^a
PNFI (Parsimonious normed fit index)	0.638 ^a	0.511	0.628 ^a	0.516
PGFI (Parsimonious goodness of fit index)	0.466 ^a	0.377	0.449 ^a	0.382
AIC (Akaike information criterion)	154.181	106.177 ^a	239.559	85.082 ^a

Note: ^aCoefficients that are favourable to the specified model

Table IV.
Indicators of the alternative models of consumer innovativeness and fit

Comparative indicators	Consumer innov.		Perceived fit	
	Unidimen.	Multidimen.	Unidimen.	Multidimen.
χ^2	195.411	31.088 ^a	77.634	50.164 ^a
RMSR (Root mean square residual)	0.079	0.022 ^a	0.034	0.025 ^a
ECVI (Expected cross-validation index)	0.309	0.076 ^a	0.140	0.103 ^a
NCP (Noncentrality parameter)	190.411	27.088 ^a	72.634	46.164 ^a
SNCP (Scaled noncentrality parameter)	0.272	0.039 ^a	0.104	0.066 ^a
PNFI (Parsimonious normed fit index)	0.453 ^a	0.394	0.483 ^a	0.391
PGFI (Parsimonious goodness of fit index)	0.292 ^a	0.261	0.314 ^a	0.256
AIC (Akaike information criterion)	215.411	53.088 ^a	97.634	72.164 ^a

Note: ^aCoefficients that are favourable to the specified model

PGFI = 0.377 < 0.466), final image (PNFI = 0.516 < 0.628; PGFI = 0.382 < 0.449), consumer innovativeness (PNFI = 0.394 < 0.453; PGFI = 0.261 < 0.292) and perceived fit (PNFI = 0.391 < 0.483; PGFI = 0.256 < 0.314). Nevertheless, the parsimony indicator, AIC, which allows us to choose between models with a different number of latent variables, as in our case, presents better values in the multidimensional structure: initial image (AIC = 106.177 < 154.181), final image (AIC = 85.082 < 239.559), consumer innovativeness (AIC = 53.088 < 215.411) and perceived fit (AIC = 72.164 < 97.634).

After verifying the multidimensional character of initial brand image, final brand image, consumer innovativeness and perceived fit, our next step was to conduct a factor analysis of all the scales. Again, we used EQS and ERLS, obtaining the results shown in Table V. We can infer from these results that the scales present good statistical properties.

As can be seen in Table V, all the proposed items unidimensionally fit the respective 13 factors or latent variables. The values obtained in composite reliability coefficients and extracted variance analysis (EVA) are above 0.6 and 0.5, respectively, which guarantees the internal consistency of the scales. Moreover, the validity criterion was satisfied from both convergent and discriminant viewpoints. Thus, all lambda coefficients for the observed variables are significant ($t > 1.96$) and they load on the corresponding factors with standard loadings above 0.5. The confidence intervals of between-factor correlations were calculated to analyse discriminant validity. No intervals included value 1, which indicates the differentiated character of the factors.

The main goodness-of-fit indicators for the measurement model are shown at the bottom of Table V, distinguishing between global and incremental fit indexes. On the whole, the indicators are positive and above the minimum established by researchers (Hair *et al.*, 1998; Kline, 2005).

With regard to global fit, GFI is above 0.8 (GFI = 0.884), whereas RMSEA and SRMR error statistics were below the maximum values of 0.06 (RMSEA = 0.053) and 0.08 (SRMR = 0.040) recommended by Hu and Bentler (1999). The only unsuitable indicator is the Chi-square test ($\chi^2(417) = 1224.142$; $p < 0.001$), which often occurs in samples of over 400 observations. On the other hand, all the incremental fit measures were above the required 0.8 (AGFI = 0.844) and 0.9 (CFI = 0.973; IFI = 0.973; NFI = 0.960; NNFI = 0.966) levels, which proves the statistical convenience of the proposed model.

The validation process concluded with the estimation of three second-order models for the dimensions of brand image (initial and final) and consumer innovativeness. These models presented favourable fit indicators for initial image (GFI = 0.958; SRMR = 0.035; NFI = 0.975; IFI = 0.979), final image (GFI = 0.972; SRMR = 0.028; NFI = 0.985; IFI = 0.989) and consumer innovativeness (GFI = 0.978; SRMR = 0.022; NFI = 0.985; IFI = 0.987).

Model and hypotheses contrasting

After analysing the psychometric properties of the scales, we proceeded to the estimation of the structural model, which corresponds to the structure shown in Figure 1. Previously, the global effect of extensions on brand image was analysed, comparing the values of initial and final image in each scenario.

Factor	Items	Reliability		Convergent validity*	
		$t (> 1.96)$	$\lambda (> 0.5)$	CRC (> 0.6)	EVA (> 0.5)
HINN	HINN2	22.230	0.861	0.828	0.707
	HINN3	20.993	0.820		
SINN	SINN1	26.547	0.915	0.891	0.733
	SINN2	25.862	0.899		
	SINN3	19.829	0.744		
FUIM (i)	FUIM1i	22.534	0.835	0.787	0.650
	FUIM2i	20.543	0.776		
FUIM (f)	FUim1f	24.779	0.873	0.857	0.750
	FUIM2f	24.208	0.859		
AFIM (i)	AFIM1i	21.076	0.787	0.785	0.550
	AFIM2i	19.473	0.741		
	AFIM3i	17.864	0.693		
AFIM (f)	AFIM1f	21.545	0.798	0.810	0.587
	AFIM2f	21.680	0.802		
	AFIM3f	17.880	0.694		
REIM (i)	REIM1i	23.342	0.871	0.770	0.629
	REIM2i	18.125	0.706		
REIM (f)	REIM1f	25.834	0.919	0.825	0.704
	REIM2f	19.868	0.751		
FAMI	FAMI1	22.112	0.838	0.845	0.645
	FAMI2	19.930	0.771		
	FAMI3	20.822	0.799		
DIFF	DIFF1	18.405	0.729	0.839	0.638
	DIFF2	24.402	0.926		
	DIFF3	18.291	0.725		
EXAT	EXAT1	22.956	0.831	0.824	0.610
	EXAT2	18.606	0.712		
	EXAT3	21.579	0.795		
CAFI	CAFI1	22.312	0.839	0.763	0.618
	CAFI2	18.837	0.730		
IMFI	IMFI1	26.733	0.906	0.920	0.793
	IMFI2	26.683	0.905		
	IMFI3	24.607	0.859		

Notes: Fit indices: Global fit: $\chi^2 = 1224.142$ (417) $p < 0.001$; GFI = 0.884; RMSEA = 0.053; SRMR = 0.040. Incremental fit: AGFI = 0.844; CFI = 0.973; IFI = 0.973; NFI = 0.960; NNFI = 0.966; CRC: Composite reliability coefficient; EVA: Extracted variance analysis, GFI: Goodness of fit index; RMSEA: Root mean square error of approximation; SRMR: Standardised root mean square residual; AGFI: Adjusted goodness of fit index; CFI: Comparative fit index; IFI: Incremental fit index; NFI: Normed fit index; NNFI: Non-normed fit index

Table V.
Reliability, convergent validity and fit of the measurement model

Given that the Cronbach alphas exceeded 0.7, a single measure of initial and final image, obtained as the mean of all the underlying items, was considered. Figures 2-4 gather the results according to the sector. For a better understanding of the effect on image, a single initial image (IMAG* (i)), calculated as the mean of initial brand images for close and far extensions, was taken into consideration. A new final brand image (IMAG* (f)), resulting from adding IMAG* (i) to the difference obtained between the final and the initial image in each scenario, was also considered. In general, these

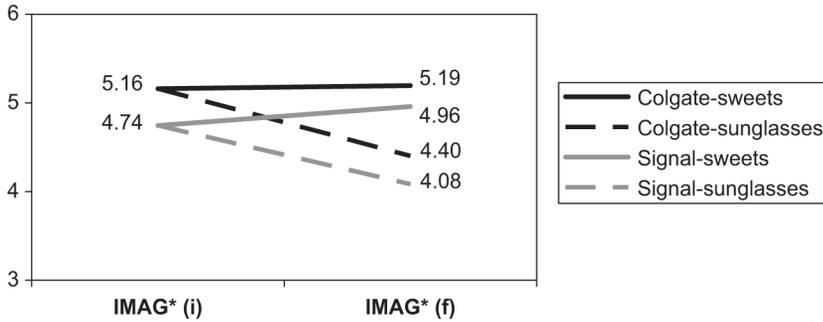


Figure 2.
Brand image variation
(toothpaste brands)

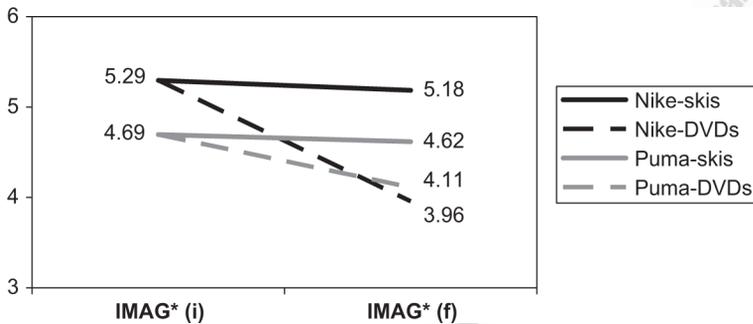


Figure 3.
Brand image variation
(sport brands)

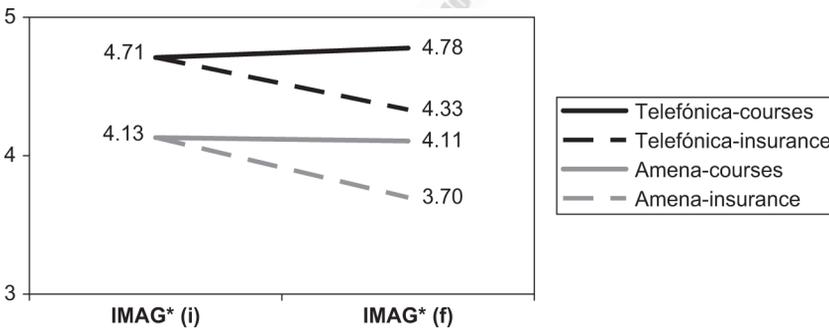


Figure 4.
Brand image variation
(mobile phones brands)

graphics suggest that firms should avoid entering markets far from their sector, since such extensions clearly entail brand image dilution.

Once the global effect of extensions was analysed, the model hypotheses were tested. To test hypotheses related to feedback effects we created new variables based on unstandardised residuals. These residuals represent the brand image variation in such a way that higher values indicate more favourable feedback effects. They were obtained by regressing the post-test scores against the corresponding post-test scores, and the psychometrical properties of the resulting construct were similar to those of brand image factors (Cronbach's alpha = 0.795).

Table VI contains the results of the model estimation and goodness of fit measurements, which are acceptable and above the thresholds established in literature. Again, reasonable values were obtained for the error statistics (RMSEA = 0.044; SRMR = 0.077) and the global fit GFI (0.892). The incremental fit indexes also met the statistical requirements (AGFI = 0.874; CFI = 0.972; IFI = 0.972; NFI = 0.952; NNFI = 0.969). Next, the specific results concerning the hypotheses are commented.

First, familiarity has a direct and significant influence on initial brand image ($\beta_{\text{est}} = 0.485$; $t\text{-value} = 10.419$), as proposed in *H1*. However, contrary to *H2*, familiarity seems to have no significant effect on extension attitude ($\beta_{\text{est}} = -0.052$; $t\text{-value} = -1.443$). Consequently, the most familiar brands will lead to more favourable brand associations, although not necessarily to a better assessment of the extension.

The effect of initial brand image on extension attitude is significant and positive ($\beta_{\text{est}} = 0.232$; $t\text{-value} = 6.351$), as proposed in *H3*. Therefore, consumers will prefer the brand extensions of companies that have managed to build and communicate positive brand associations. Since brand image depends on brand familiarity, consumer attitude toward brand extensions seems to be the result of a cognitive-affective sequence (Fishbein and Ajzen, 1975).

Supporting *H4*, category fit seems to be a clear determinant of extension attitude ($\beta_{\text{est}} = 0.299$; $t\text{-value} = 2.439$). In the same way, extension attitude is significantly dependant on image fit ($\beta_{\text{est}} = 0.587$; $t\text{-value} = 4.876$), which confirms *H5*. Consequently, consumers will prefer those extensions marketed in a category that fits the brand portfolio, especially in terms of general brand associations.

The effect of perceived difficulty on extension attitude is positive ($\beta_{\text{est}} = 0.035$), as expected. Nevertheless, the coefficient relating both factors fails to reach statistical significance ($t\text{-value} = 1.186$), which implies rejecting *H6*. This lack of statistical significance reveals that consumers do not consider difficulty of manufacturing as a heuristic of the perceived quality of the new product.

Hypotheses	Standardised β (t)		Hypotheses validation
<i>H1</i> : FAMI → IMAG (i)	0.485 *	(10.419)	Yes
<i>H2</i> : FAMI → EXAT	-0.052	(-1.443)	No
<i>H3</i> : IMAG (i) → EXAT	0.232 *	(6.351)	Yes
<i>H4</i> : CAFI → EXAT	0.299 *	(2.439)	Yes
<i>H5</i> : IMFI → EXAT	0.587 *	(4.876)	Yes
<i>H6</i> : DIFF → EXAT	0.035	(1.186)	No
<i>H7</i> : INNV → EXAT	0.093 *	(2.924)	Yes
<i>H8</i> : EXAT → IMAG variation	0.631 *	(5.846)	Yes
<i>H9</i> : CAFI → IMAG variation	-0.050	(-0.313)	No
<i>H10</i> : IMFI → IMAG variation	0.159	(1.004)	No

Notes: *Significant at $p \leq 0.05$; Fit indices: Global fit: $\chi^2 = 1131.700$ (481); $p < 0.001$; GFI = 0.892; RMSEA = 0.044; SRMR = 0.077. Incremental fit: AGFI = 0.874; CFI = 0.972; IFI = 0.972; NFI = 0.952; NNFI = 0.969; CRC: Composite reliability coefficient; EVA: Extracted variance analysis, GFI: Goodness of fit index; RMSEA: Root mean square error of approximation; SRMR: Standardised root mean square residual; AGFI: Adjusted goodness of fit index; CFI: Comparative fit index; IFI: Incremental fit index; NFI: Normed fit index; NNFI: Non-normed fit index

Table VI.
Results of the structural model

Regarding *H7*, consumer innovativeness appears to have a clear, though reduced, effect on extension attitude ($\beta_{\text{est}} = 0.093$; t -value = 2.924). All in all, attitude towards extensions will be fundamentally explained by the initial brand image (*H3*), perceived fit (*H4* and *H5*) and, to a lesser extent, by other factors such as consumer innovativeness (*H7*).

H8 to *H10* indicate the factors that explain the potential feedback effects of brand extensions on brand image. With respect to *H8*, extension attitude has a positive and significant effect on brand image variation ($\beta_{\text{est}} = 0.631$; $t = 5.846$). Hence, the more favourable the attitude to the extension is, the more favourable the attitude toward the extended brand will be. Because of the high coefficient obtained, companies launching brand extensions will have to avoid damaging their brands with low quality products.

Contrary to our expectations, perceived category fit has no direct effect on brand image variation, which rejects *H9* ($\beta_{\text{est}} = -0.050$; $t = -0.313$). Despite showing a relatively high and positive coefficient, the effect of image fit proposed in *H10* is not significant either ($\beta_{\text{est}} = 0.159$; $t = 1.004$). The lack of significance in both coefficients suggests that the influence of fit on brand image variation is only indirect through extension attitude (*H4* and *H5*). To sum up, then, while perceived image and category fit are essential factors for the success of a brand extension, it is significant that extension attitude synthesises their effects. The centralising role of extension attitude was also corroborated by checking through the estimation of competitive models that neither brand familiarity nor consumer innovativeness nor perceived difficulty have direct effects on brand image variation.

Given the importance that literature attaches to perceived fit to explain feedback effect (e.g. Loken and John, 1993; John *et al.*, 1998) and the lack of significant effects in our model, we took a new step in the analysis. According to Czellar (2003), perceived fit may moderate the influence of the attitude to the extension on the attitude to the extended brand. In the same way that high-perceived fit increases the transference of brand associations to the new product (Aaker and Keller, 1990; Czellar, 2003), we think that the opposite effect could take place. This possibility was explored by means of two multi-sample analyses for each of the fit dimensions, category fit and image fit. Specifically, the sample was split into high fit (mean > 4) and low fit (mean < 4) and the structural model were replicated without considering direct effects of fit. The Lagrange Multiplier (LM) Test and the maximum likelihood estimation method determined whether the model coefficients are significantly different (Iglesias and Vázquez, 2001).

The comparison between the considered sub-samples yields interesting results. Although the effect of extension attitude on image variation was similar for category fit ($\chi^2_{\text{dif}} = 0.182$; $p > 0.1$), the results lend support to the existence of moderating effects for image fit at 90 per cent ($\chi^2_{\text{dif}} = 2.868$; $p = 0.090$). In the expected direction, the influence of extension attitude was higher in the high fit condition ($\beta_{\text{est}} = 0.810$; $t = 12.740$) than in the low fit one ($\beta_{\text{est}} = 0.666$; $t = 11.203$). In consequence, spillover effects between the brand and the extension (forward and backward) will depend on image fit perceptions rather than on category fit.

Discussion

A brand is one of the most important assets for firms and, therefore, marketing managers must be on the alert for inadequate strategies that erode brand assets. One of this potentially risky strategies involves the launching of unsuitable brand extensions that erode extended brand benefits and associations (Martinez and de Chernatony, 2004; Diamantopoulos *et al.*, 2005). However, so far there is no clear understanding of the main variables leading to spillover effects between brand extensions and parent brands and their relative influence.

The present work proposes a model to find out how extension strategies affect brand image, one of the major dimensions of brand equity. Unlike most previous research, this paper focuses on extension evaluation and feedback effects on the core brand as interrelated rather than independent phenomena. Moreover, it incorporates a few key variables into an operative model instead of considering most of the potential variables that might divert the attention of researchers and practitioners alike. The estimation of this model showed positive goodness-of-fit indexes and, without considering non-validated relationships, it sheds some light on the main factors and processes explaining consumer attitude.

According to the literature, core parent brand experience positively influences probability of extension trial (Swaminathan *et al.*, 2001; Swaminathan, 2003). However, our results reveal an indirect effect of brand experience or brand familiarity on consumer attitude to brand extensions. This variable has a distinctive influence on brand image, which, in turn, affects the assessment of the new category. These results are coherent with the behaviour models defined by some authors who maintain that the individual's beliefs determine attitude and this, in turn, determines purchase behaviour (Fishbein and Ajzen, 1975). From this perspective, brand image, rather than brand familiarity, would explain consumer attitude to the extension.

Our findings validate previous results in the literature concerning the positive effects of perceived fit, either category or image fit, on consumer attitude. In the same way, it was confirmed that consumer innovativeness increases likelihood of consumer acceptance, although to a lesser extent than perceived fit (Völckner and Sattler, 2006). Nevertheless, we could not verify the proposed relationship between the attitude to the extension and difficulty in manufacturing the new category. Due to the clear inconsistency of results along studies, the relevance of this variable proposed by Aaker and Keller (1990) should be questioned.

In relation to feedback effects, our results suggest that perceived fit (category and image) has no direct effect on the extended brand image, though an indirect effect occurs through attitude to the extension. Previous works focusing on the influence of perceived fit on parent brand associations have mostly resorted to experimental settings (e.g. Loken and John, 1993; Milberg *et al.*, 1997; John *et al.*, 1998) rather than SEM models. Therefore, this relationship cannot be taken for granted in complex models where several constructs are interrelated.

The estimation of the model also revealed that image fit moderates the effect of extension attitude on image variation. In the light of the results, consumers that perceive the extension as coherent with the brand image will modify their brand associations mainly on the basis of their resulting attitude. A high fit perception usually entails a categorisation process where the extension is associated to the brand category and leverages the current beliefs and attitudes (Monga and Houston,

2002). According to our results, this process occurs in the opposite direction in such a way that a high fit will involve the leveraging of the attitude to the extension. The results obtained are thus in line with those works that indicate that consumer attitude toward brand extensions mainly depends on perceived fit (Aaker and Keller, 1990; van Riel *et al.*, 2001; Völckner and Sattler, 2006). Moreover, it contributes to the body of knowledge by showing that the effect of perceived category and image fit on the extended brand image is not direct. On the contrary, it occurs an indirect effect through extension attitude and, in the case of image fit, a further moderating effect on the relationship between extension attitude and image variation.

To sum up, the coefficients obtained indicate that extension attitude is especially determined by perceived category fit, image fit and initial brand image, which, in turn depends on familiarity. Consumer innovativeness is also a factor that explains consumer response to brand extensions. Furthermore, the results reveal that the existence of positive feedback effects will be an immediate consequence of the attitude to the extension. These results clearly support the basic argument of our model: the consumer will assess the product according to a series of variables and, as a result, the consumers will modify the initial brand schema.

Implications

Considering all the results obtained as a whole, we can make some recommendations for firms launching brand extensions. There is no doubt that the most important aspect for the success of an extension is coherence with the image of the extended brand. Though positive, it is not essential that the new product or service belongs to a new category, but the firm has to be able to communicate the brand essence to the different markets (Kim, 2003). Once the new product is firmly associated to the current brand image, consumers will perceive a high quality of the new product and the risk associated to purchasing it will be lowered.

Although innovative consumers are expected to prefer low-fit products (Xie, 2008), consumer innovativeness is a factor with a weak effect on the attitude to the extension. In comparison to introducing a new brand name, brand extensions will increase consumer trust and reduce the weight of consumer innovativeness as a risk reliever. Since consumer behaviour will be relatively similar regardless of consumer predisposition to new products, this factor should not be used for potential market segmentation. In consequence, companies must identify other consumer characteristics able to alter perceptions of quality and purchase intentions of specific product categories.

A favourable initial image will also be positive for consumer acceptance increasing the appeal of the new product. This image is hard to obtain in the short term, although our model suggests that increasing familiarity through communication or brand trials is an effective way of building brand associations. Since brand familiarity does not directly influence extension attitude, companies do not have to worry when their brands are not familiar enough or the current market share is scarce. Whenever they are capable of transmitting a positive brand image and fit is high, success should be easy to obtain. Moreover, launching products perceived as trivial or very easy to make will not prevent consumers from trying the new product, a concern highlighted by Aaker and Keller (1990).

Once consumers have developed a favourable attitude toward the new product, the brand associations might not be diluted but even strengthened. Provided perceived fit between the extension and the core brand is high, especially on the basis of image fit, the attitude to the extension will be the main driver of feedback effects. Consequently, increasing the success of brand extensions and protecting the leveraged image are not conflicting but complementary goals. Companies should thus address their efforts towards the success of the extension by building a bundle of coherent and strong brand associations. This is the best way to avoid the risk of image dilution.

Future research

Our findings raise several issues for future research. The first issue refers to the lack of time between the extension stimulus and the subsequent measurement of brand image, which is the common procedure in most studies. The fact of the matter is that higher experience reduces the likelihood of negative feedback effects (Sheinin, 2000; Swaminathan, 2003), since the mere exposure to the new product affords consumers to establish links with the brand that, otherwise, would not exist (Klink and Smith, 2001). However, experiments requiring the cooperation of respondents over time are likely to suffer from a “history problem” caused by the influence of external events (Campbell and Stanley, 1963). By analysing FMCG through a longitudinal study, Völckner and Sattler (2008) show that feedback effects diminish over time, although they also admit the possibility of confounding effects.

Taking into account the advantages and disadvantages of the different procedures, the present study opted to exclude extraneous variables by minimising the time between pre and post-test scores. Since we aimed to test the interrelationships between factors, the setting of the study was designed to reinforce internal validity as much as possible. Consequently, it must be observed that the paper generates a picture of feedback effects in the short-term and these effects should be checked through a long period of time. It would be also advisable to verify whether the validated relationships are consistent when consumers are exposed to all the market signals (competitors action, distribution support, etc.) by using real extensions.

Another issue to consider is whether the model can be applied to extensions of the same category or line extensions. Since line extensions are products with a higher perceived degree of fit (Grime *et al.*, 2002), there is a possibility that the relationships are sustained. It might be even more interesting to study whether service companies can successfully extend to the goods markets and vice versa. Indeed, it would be worthwhile to examine the brand and extension conditions that lead to higher effects of perceived fit dimensions on the extension attitude toward the brand.

Given that the influence of consumer innovativeness on extension attitude was less than expected, further research could also explore whether consumer innovativeness has moderating effects rather than mediating ones. Klink and Smith (2001) proved that the influence of perceived fit on extension attitude is lower among innovative consumers, who are more receptive to new products. The in-depth study of other variables related to personality, such as sensation-seeking or impulsive decision-making, also deserves attention

Finally, it would be convenient to revise other measurement scales for brand image, which include a higher number of items. Brand image is a complex construct that sums up every association linked to the brand and may involve attributes, benefits, and

attitudes (Keller, 1993). Although the proposed scale can be a suitable proxy, further research should deal with the limitations derived from the items used for measuring brand image and the remaining factors as well.

References

- Aaker, D.A. (1996), "Measuring brand equity across products and markets", *California Management Review*, Vol. 38 No. 3, pp. 102-20.
- Aaker, D.A. (2002), *Brand Portfolio Strategy*, The Free Press, New York, NY.
- Aaker, D.A. and Keller, K.L. (1990), "Consumer evaluations of brand extensions", *Journal of Marketing*, Vol. 54 No. 1, pp. 27-41.
- Ahluwalia, R. and Gurhan-Canli, Z. (2000), "The effects of extensions on the family brand name: an accessibility-diagnostics perspective", *Journal of Consumer Research*, Vol. 27 No. 3, pp. 371-81.
- Alba, J.W. and Hutchinson, J.W. (1987), "Dimensions of consumer expertise", *Journal of Consumer Research*, Vol. 13 No. 4, pp. 411-54.
- Alexander, N. and Colgate, M. (2005), "Customers' responses to retail brand extensions", *Journal of Marketing Management*, Vol. 21 Nos 3/4, pp. 393-419.
- Anderson, J.R. (1983), "A spreading activation theory of memory", *Journal of Verbal Learning and Verbal Behavior*, Vol. 22 No. 3, pp. 261-95.
- Balachander, S. and Ghose, S. (2003), "Reciprocal spillover effects: a strategic benefit of brand extensions", *Journal of Marketing*, Vol. 76, January, pp. 4-13.
- Barrett, J., Lye, A. and Venkateswarlu, P. (1999), "Consumer perceptions of brand extensions: generalising Aaker and Keller's model", *Journal of Empirical Generalisations in Marketing Science*, Vol. 4, pp. 1-21.
- Bhat, S. and Reddy, S.K. (2001), "The impact of parental brand attribute associations and affect on brand extension evaluation", *Journal of Business Research*, Vol. 53 No. 3, pp. 111-22.
- Boush, D.M. and Loken, B. (1991), "A process-tracing study of brand extension evaluation", *Journal of Marketing Research*, Vol. 28 No. 1, pp. 16-28.
- Boush, D.M., Shipp, S., Loken, B., Genturck, E., Crockett, S., Kennedy, E., Minshall, B., Misurell, D., Rochford, L. and Strobel, J. (1987), "Affect generalization to similar and dissimilar brand extensions", *Psychology and Marketing*, Vol. 4 No. 3, pp. 225-37.
- Brown, T.J. and Dacin, P.A. (1997), "The company and the product: corporate associations and consumer product responses", *Journal of Marketing*, Vol. 61 No. 1, pp. 68-84.
- Campbell, D. and Stanley, J. (1963), *Experimental and Quasi-experimental Designs for Research*, Rand McNally, Chicago, IL.
- Chang, J.W. (2002), "Will a family brand image be diluted by an unfavorable brand extension? A brand trial-based approach", *Advances in Consumer Research*, Vol. 29, pp. 299-304.
- Czellar, S. (2003), "Consumer attitude toward brand extensions: an integrative model and research propositions", *International Journal of Research in Marketing*, Vol. 20 No. 1, pp. 97-115.
- Dawar, N. (1996), "Extensions of broad brands: the role of retrieval in evaluations of fit", *Journal of Consumer Psychology*, Vol. 5 No. 2, pp. 189-207.
- de Ruyter, K. and Wetzels, M. (2000), "The role of corporate image and extension similarity in service brand extensions", *Journal of Economic Psychology*, Vol. 21 No. 6, pp. 639-59.

- Diamantopoulos, A., Smith, G. and Grime, I. (2005), "The impact of brand extensions on brand personality: experimental evidence", *European Journal of Marketing*, Vol. 39 Nos 1/2, pp. 129-49.
- Eagly, A.H. and Chaiken, S. (1993), *The Psychology of Attitudes*, Harcourt Brace Jovanovich, Fort Worth, TX.
- Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley Publishing, Reading, MA.
- Glynn, M.S. and Brodie, R.J. (1998), "The importance of brand-specific associations in brand extension: further empirical results", *Journal of Product & Brand Management*, Vol. 7 No. 6, pp. 509-18.
- Grime, I., Diamantopoulos, A. and Smith, G. (2002), "Consumer evaluations of extensions and their effects on the core brand: key issues and research propositions", *European Journal of Marketing*, Vol. 36 Nos 11/12, pp. 1415-38.
- Gurhan-Canli, Z. and Maheswaran, D. (1998), "The effects of extensions on brand name dilution and enhancement", *Journal of Marketing Research*, Vol. 35 No. 4, pp. 464-73.
- Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), *Multivariate Data Analysis*, 5th ed., Prentice-Hall, Englewood Cliffs, NJ.
- Hansman, H. and Schutjens, V. (1993), "Dynamics in market segmentation: a demographic perspective on age-specific consumption", *Marketing and Research Today*, Vol. 21 No. 3, pp. 39-147.
- Hem, L.E., de Chernatony, L. and Iversen, N.M. (2003), "Factors influencing successful brand extensions", *Journal of Marketing Management*, Vol. 19 Nos 7/8, pp. 781-806.
- Hoek, J., Dunnett, J., Wright, M. and Gendall, P. (2000), "Descriptive and evaluative attributes: what relevance to marketers?", *Journal of Product & Brand Management*, Vol. 9 No. 6, pp. 415-35.
- Hu, L. and Bentler, P.M. (1999), "Cut-off criteria for fit indices in covariance structure analysis: conventional versus new alternatives", *Structural Equation Modeling*, Vol. 1, p. 55.
- Hughes, C. (2007), "Branson faces juggling test over his empire", *Financial Times*, July 21, p. 15.
- Iglesias, V. and Vázquez, R. (2001), "The moderating effects of exclusive dealing agreements on distributor satisfaction", *Journal of Strategic Marketing*, Vol. 9 No. 3, pp. 1-19.
- John, D.R., Loken, B. and Joiner, C. (1998), "The negative impact of extensions: can flagship products be diluted?", *Journal of Marketing*, Vol. 62 No. 1, pp. 19-32.
- Jöreskog, K.G. and Sörbom, D. (1993), *LISREL 8: Structural Equation Modelling with the SIMPLIS Command Language*, Scientific Software International SSI, Moorsville, IN.
- Keller, K.L. (1993), "Conceptualizing, measuring, and managing costumer-based brand equity", *Journal of Marketing*, Vol. 57, January, pp. 1-22.
- Keller, K.L. (2003), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, 2nd ed., Prentice-Hall, New York, NY.
- Keller, K.L. and Aaker, D.A. (1992), "The effects of sequential introduction of brand extensions", *Journal of Marketing Research*, Vol. 29 No. 1, pp. 35-50.
- Kim, J.Y. (2003), "Communication message strategies for brand extensions", *Journal of Product & Brand Management*, Vol. 12 Nos 6/7, pp. 462-76.
- Kirman, A., Sood, S. and Bridges, S. (1999), "The ownership effect in consumer responses to brand line stretches", *Journal of Marketing*, Vol. 63 No. 1, pp. 88-101.

-
- Kline, R.B. (2005), *Principles and Practice of Structural Equation Modeling*, 2nd ed., The Guilford Press, New York, NY.
- Klink, R.R. and Smith, D.C. (2001), "Threats to the external validity of brand extension research", *Journal of Marketing Research*, Vol. 38 No. 3, pp. 326-35.
- Lane, V. and Jacobson, R. (1997), "The reciprocal impact of brand leveraging: feedback effects from brand extension evaluation to brand evaluation", *Marketing Letters*, Vol. 8 No. 3, pp. 261-71.
- Lee, M. and Ulgado, F.M. (1993), "Service extension strategy: a viable basis for growth?", *Journal of Services Marketing*, Vol. 7 No. 2, pp. 24-35.
- Lemmink, J., Schuijf, A. and Streukens, S. (2003), "The role of corporate image and company employment image in explaining application intentions", *Journal of Economic Psychology*, Vol. 24 No. 1, pp. 1-15.
- Loken, B. and John, D.R. (1993), "Diluting brand beliefs: when do brand extensions have a negative impact?", *Journal of Marketing*, Vol. 57 No. 3, pp. 71-84.
- Low, G.S. and Lamb, C.W. Jr (2000), "The measurement and dimensionality of brand associations", *Journal of Product & Brand Management*, Vol. 9 No. 6, pp. 350-68.
- Martin, G.S. and Brown, T.J. (1990), "In search of brand equity: the conceptualization and measurement of the brand impression construct", in Childers, M.L. (Ed.), *Marketing Theory and Applications*, Vol. 2, American Marketing Association, Chicago, IL, pp. 431-8.
- Martinez, E. and de Chernatony, L. (2004), "The effect of brand extension strategies upon brand image", *The Journal of Consumer Marketing*, Vol. 21 No. 1, pp. 39-50.
- Martinez, E. and Pina, J.M. (2003), "The negative impact of brand extensions on parent brand image", *Journal of Product & Brand Management*, Vol. 12 Nos 6/7, pp. 432-48.
- Martinez, E., Montaner, T. and Pina, J.M. (2004), "Leveraging brand image in new product introduction. An operational measurement", *Proceedings of the 11th International Product Development Management Conference, Dublin, Ireland*.
- Milberg, S.J., Park, C.W. and McCarthy, M.S. (1997), "Managing negative feedback effects associated with brand extensions: the impact of alternative branding strategies", *Journal of Consumer Psychology*, Vol. 6 No. 2, pp. 119-40.
- Milewicz, J. and Herbig, P. (1994), "Evaluating the brand extension decision using a model of reputation building", *Journal of Product & Brand Management*, Vol. 3 No. 1, pp. 39-47.
- Monga, A. and Houston, M.J. (2002), "The brand extension evaluation process: insights from the continuum model of impression formation", *Advances in Consumer Research*, Vol. 29, pp. 188-9.
- Morrin, M. (1999), "The impact of brand extensions on parent brand memory structures and retrieval processes", *Journal of Marketing Research*, Vol. 36 No. 4, pp. 517-25.
- Park, C.W., Jaworski, B.J. and MacInnis, D.J. (1986), "Strategic brand concept-image management", *Journal of Marketing*, Vol. 50 No. 4, pp. 135-45.
- Park, C.W., McCarthy, M.S. and Milberg, S.J. (1993), "The effects of direct and associative brand extension strategies on consumer response to brand extensions", *Advances in Consumer Research*, Vol. 20, pp. 28-33.
- Park, C.W., Milberg, S. and Lawson, R. (1991), "Evaluation of brand extensions: the role of product feature", *Journal of Consumer Research*, Vol. 18 No. 2, pp. 185-93.

- Pryor, K. and Brodie, R.J. (1998), "How advertising slogans can prime evaluations of brand extensions: further empirical results", *Journal of Product & Brand Management*, Vol. 7 No. 6, pp. 497-508.
- Reast, J.D. (2005), "Brand trust and brand extension acceptance: the relationship", *Journal of Product & Brand Management*, Vol. 14 No. 1, pp. 4-13.
- Reynolds, W.H. (1965), "The role of the consumer in image building", *California Management Review*, Vol. 7, pp. 69-76.
- Ries, A. and Trout, J. (1993), *The 22 Immutable Laws of Marketing*, McGraw-Hill, New York, NY.
- Roehrich, G. (1994), "Innovativités hédonistes et sociales: proposition d'une échelle de mesure", *Recherche et Applications en Marketing*, Vol. 9 No. 2, pp. 19-41.
- Roehrich, G. (2004), "Consumer innovativeness: concepts and measurements", *Journal of Business Research*, Vol. 57 No. 6, pp. 671-7.
- Rogers, E.M. (1983), *Diffusion of Innovations*, 3rd ed., The Free Press, New York, NY.
- Semeijn, J., van Riel, A.C.R. and Ambrosini, A.B. (2004), "Consumer evaluations of store brands: effects of store image and product attributes", *Journal of Retailing and Consumer Services*, Vol. 11, pp. 247-58.
- Sheinin, D.A. (2000), "The effects of experience with brand extensions on parent brand knowledge", *Journal of Business Research*, Vol. 49, pp. 47-55.
- Sheinin, D.A. and Schmitt, B.H. (1994), "Extending brands with new product concepts: the role of category attribute congruity, brand affect, and brand breadth", *Journal of Business Research*, Vol. 31 No. 1, pp. 1-10.
- Siu, N.Y.M., Woo, K.S. and Cheung, T.H. (2004), "Service quality expectation towards self-service technology: the case of internet banking", *Proceedings of the 38th Academy of Marketing Conference, Cheltenham, UK*.
- Smith, D.C. and Park, C.W. (1992), "The effects of brand extensions on market share and advertising efficiency", *Journal of Marketing Research*, Vol. 29, pp. 296-313.
- Swaminathan, V. (2003), "Sequential brand extensions and brand choice behavior", *Journal of Business Research*, Vol. 56 No. 6, pp. 431-42.
- Swaminathan, V., Fox, R.J. and Reddy, S.K. (2001), "The impact of brand extension introduction on choice", *Journal of Marketing*, Vol. 65 No. 4, pp. 1-15.
- Tauber, E.M. (1988), "Brand leverage: strategy for growth in a cost-control world", *Journal of Advertising Research*, Vol. 28 No. 4, pp. 26-30.
- Taylor, V.A. and Bearden, W.O. (2002), "The effects of price on brand extension evaluations: the moderating role of extension similarity", *Academy of Marketing Science Journal*, Vol. 30 No. 2, pp. 131-40.
- van Riel, A. and Ouwersloot, H. (2005), "Extending electronic portals with new services: exploring the usefulness of brand extension models", *Journal of Retailing and Consumer Services*, Vol. 12 No. 3, pp. 245-54.
- van Riel, A.C.R., Lemmink, J. and Ouwersloot, H. (2001), "Consumer evaluations of service brand extensions", *Journal of Service Research*, Vol. 3 No. 3, pp. 220-31.
- Villarejo, A. (2002), *La Medición del Valor de Marca en el Ámbito de la Gestión de Marketing*, CEADE, Sevilla.
- Völckner, F. and Sattler, H. (2006), "Drivers of brand extension success", *Journal of Marketing*, Vol. 70 No. 2, pp. 18-34.

- Völckner, F. and Sattler, H. (2008), "Image feedback effects of brand extensions: evidence from a longitudinal field study", *Marketing Letters*, Vol. 19, pp. 109-24.
- Weber, R. and Crocker, J. (1983), "Cognitive processes in the revision of stereotypic beliefs", *Journal of Personality and Social Psychology*, Vol. 45, pp. 961-77.
- Weiss, A.M., Anderson, E. and MacInnis, D.J. (1999), "Reputation management as a motivation for sales structure decisions", *Journal of Marketing*, Vol. 63 No. 4, pp. 74-89.
- Xie, Y.H. (2008), "Consumer innovativeness and consumer acceptance of brand extensions", *Journal of Product & Brand Management*, Vol. 17 No. 4, pp. 235-43.

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