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Examining the role of advertising and sales promotions in brand equity creation☆

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ABSTRACT

This study explores the relationships between two central elements of marketing communication programs — advertising and sales promotions — and their impact on brand equity creation. In particular, the research focuses on advertising spend and individuals' attitudes toward the advertisements. The study also investigates the effects of two kinds of sales promotions, monetary and non-monetary promotions. Based on a survey of 302 UK consumers, findings show that the individuals' attitudes toward the advertisements play a key role influencing brand equity dimensions, whereas advertising spend for the brands under investigation improves brand awareness but is insufficient to positively influence brand associations and perceived quality. The paper also finds distinctive effects of monetary and non-monetary promotions on brand equity. In addition, the results show that companies can optimize the brand equity management process by considering the relationships existing between the different dimensions of brand equity.

1. Introduction

Both practitioners and academics regard brand equity as an important concept (Keller and Lehmann, 2006). Elements of a brand's equity positively influence consumers' perceptions and subsequent brand buying behaviors (Reynolds and Phillips, 2005). Therefore, to increase the likelihood of such positive contributions and manage brands properly, companies need to develop strategies which encourage the growth of brand equity (Keller, 2007). In this context, the identification of factors that build brand equity represents a central priority for academics and marketing managers (Baldauf et al., 2009; Valette-Florence et al., 2011).

Previous research suggests that marketing mix elements are key variables in building brand equity (e.g., Yoo et al., 2000). As such, one of the major challenges marketers face is deciding on the optimum marketing budget to achieve both the highest impact on the target market (Soberman, 2009) and the brand (Ataman et al., 2010). Although considerable research examines the effectiveness of different elements of the marketing mix on brand equity, as Keller and Lehmann (2006, p. 747) state, these researchers "*have not typically addressed the full breadth of brand equity dimensions*". Few studies include consumer-based brand equity measures (i.e., mindset measures) when analyzing marketing mix effectiveness. One of the exceptions is Yoo et al. (2000) who explore the relationships between selected marketing mix elements and consumer-based brand equity. While their research provides new insights into how marketing activities may influence brand equity, these authors advocate further exploration of the impact of the different marketing mix variables.

Two marketing variables are of particular interest: advertising and sales promotions. Compared to other forms of marketing activity, expenditures on advertising and promotions are significant. For instance, these two variables account for approximately 1.5% of the UK's gross domestic product (West and Prendergast, 2009). Despite their importance, the individual contributions of advertising and sales promotions to brand equity remain unclear and scholars highlight the need to further examine the effect of these variables (Netemeyer et al., 2004; Chu and Keh, 2006). Therefore, this study addresses this request.

Another area for improving understanding about consumer-based brand equity is the interaction between brand equity dimensions. Generally, researchers propose associative relationships among the consumer-based brand equity dimensions (e.g., Yoo and Donthu, 2001; Pappu et al., 2005; Tong and Hawley, 2009). However, several authors advocate that researchers focus on the ordering among the brand equity dimensions (Yoo and Donthu, 2001; Keller and Lehmann, 2006).

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Within this context, the purpose of this article is twofold. First, to shed more light on two particular drivers of brand equity: advertising and sales promotions. In particular, the study focuses on advertising spend and individuals' attitudes toward the advertisements. Similarly, the research investigates the effects of two kinds of sales promotions, monetary and non-monetary promotions. Second, to explore the relationships among brand equity dimensions.

Building on the framework proposed by Yoo et al. (2000), the current work goes beyond research on sources of brand equity in several ways. First, most brand equity studies have simply focused on the influence that advertising spend and frequency of monetary promotions have on brand equity (e.g., Yoo et al., 2000; Villarejo and Sánchez, 2005; Bravo et al., 2007; Valette-Florence et al., 2011). By contrast, this study also analyzes individuals' attitudes toward the advertisements and non-monetary promotions. Despite several scholars recognizing that other advertising characteristics beyond just advertising spend, such as individuals' attitudes toward the advertisements, play an important role in growing brand equity (Cobb-Walgren et al., 1995; Keller and Lehmann, 2003; 2006; Bravo et al., 2007; Sriram et al., 2007), research on brand equity has traditionally ignored these attitudes. Similarly, recent literature on sales promotions (e.g., Chandon et al., 2000) stresses the need to differentiate between two types of promotions, monetary and non-monetary promotions. Surprisingly, academic research into the effects of non-monetary promotions on brand equity is scarce. Second, this article analyzes the causal order among brand equity dimensions. Several studies suggest a hierarchy in terms of the importance of brand equity dimensions and potential causal order (Agarwal and Rao, 1996; Maio Mackay, 2001; Yoo and Donthu, 2001; Keller and Lehmann, 2003; 2006). However, few studies have empirically examined how brand equity dimensions inter-relate. Analyzing all these aspects, this research advances knowledge by providing more insight about the evolving theory of brand equity.

This paper opens with a brief, general discussion of brand equity and marketing mix elements followed by the hypotheses. Then, the fourth section explains the methodology to test the model. Next section presents the results of the study. Finally, the paper concludes by outlining the conclusions, implications and limitations of the research.

2. Conceptual framework

2.1. Brand equity

Brand equity is a key issue in marketing. Despite receiving considerable attention, no consensus exists about which are the best measures to capture this complex and multi-faceted construct (Maio Mackay, 2001; Raggio and Leone, 2007). Part of the reason is the different perspectives adopted to define and measure this concept (Christodoulides and de Chernatony, 2010). The financial perspective stresses the value of a brand to the firm (Simon and Sullivan, 1993; Feldwick, 1996). On the other hand, the consumer perspective focuses the conceptualization and measurement of brand equity on individual consumers (Leone et al., 2006).

Adopting the latter perspective, and from a cognitive psychology approach, brand equity denotes the added value endowed by the brand to the product (Farquhar, 1989). Aaker (1991, p. 15) provides one of the most accepted and comprehensive definitions of brand equity: "*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*". Keller (1993, p. 2) proposes a similar definition: "*the differential effect of brand knowledge on consumer response to the marketing of the brand*".

Consumer-based brand equity measures assess the awareness, attitudes, associations, attachments and loyalties consumers have toward a brand (Keller and Lehmann, 2006). These measures offer considerable advantages such as the assessment of sources of brand equity and its consequences, plus a diagnostic capability (Ailawadi et al., 2003; Gupta and Zeithaml, 2006). In this sense, these measures act as early evaluation signals about future performance (Srinivasan et al., 2010). From this perspective, the two main frameworks that conceptualize brand equity are those of Aaker (1991) and Keller (1993). According to Aaker (1991), brand equity is a multidimensional concept whose first four core brand equity dimensions are brand awareness, perceived quality, brand associations and brand loyalty. Brand equity research omits the fifth of Aaker's dimensions, other proprietary brand assets, since this component is not pertinent to consumers. Keller's (1993) conceptualization focuses on brand knowledge and involves two components: brand awareness and brand image.

Drawing on these theoretical proposals, a large number of studies conceptualize and measure brand equity using the dimensions of brand awareness, perceived quality, brand associations and brand loyalty (e.g., Cobb-Walgren et al., 1995; Yoo et al., 2000; Yoo and Donthu, 2001; Washburn and Plank, 2002; Ashill and Sinha, 2004; Pappu et al., 2005; 2006; Konecnik and Gartner, 2007; Tong and Hawley, 2009; Lee and Back, 2010).

Following these two approaches, this research uses a consumer-based brand equity measure that consists of four dimensions: brand awareness, perceived quality, brand associations, and brand loyalty.

2.2. Marketing mix elements

Marketing mix elements influence consumers' equity perceptions toward brands (Pappu and Quester, 2008). These variables are important not only because they can greatly affect brand equity but also because they are under companies' control, enabling marketers to grow brand equity through their marketing activities (Keller, 1993; Berry, 2000; Yoo et al., 2000; Ailawadi et al., 2003; Herrmann et al., 2007).

Within the discipline of marketing dynamics, numerous studies use financial and product–market measures of brand equity to analyze the short- and long-term effects of marketing actions and polices, such as advertising and price promotions (Leeflang et al., 2009; Ataman et al., 2010; Srinivasan et al., 2010).

From the consumer-based brand equity perspective, which this research follows, Yoo et al. (2000) find that high advertising spend, high price, high distribution intensity and distribution through retailers with good store image would help build brand equity. By contrast, frequent price promotions would harm brand equity. Villarejo and Sánchez (2005) also focus their study on advertising spend and price promotions, while Bravo et al. (2007) add to these variables the effect of the price.

This study focuses on the role of two specific marketing communications tools: advertising and sales promotions. These two marketing elements account for at least 25% of UK marketing budgets (Chartered Institute of Marketing, 2009). Despite their importance, the influence of these variables on brand equity still remains unclear (Netemeyer et al., 2004; Chu and Keh, 2006). This research responds to this gap by exploring their effects on consumer-based brand equity.

3. Research hypotheses

Fig. 1 shows the conceptual framework underlying this research. This study addresses how advertising spend and individuals' attitudes toward the advertisements influence brand equity dimensions. Similarly, the study focuses on two kinds of sales promotions, monetary and non-monetary. Based on the literature, this research also hypothesizes relationships among brand equity dimensions.

3.1. Advertising

Advertising is one of the most visible marketing activities. Generally, researchers posit that advertising is successful in building consumer-based brand equity, having a sustaining and accumulative

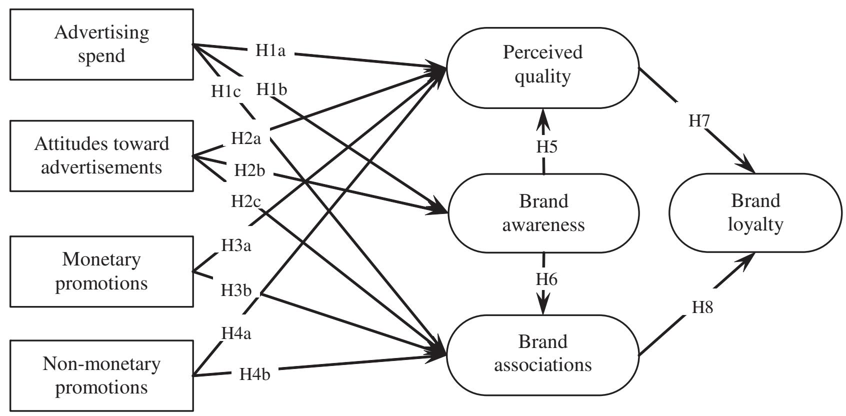

Fig. 1. Conceptual model.

effect on this asset (Wang et al., 2009). However, advertising effects depend on both the amount invested and the types of messages communicated (Martínez et al., 2009).

Several authors have investigated how actual and perceived advertising spend influences brand equity and its dimensions (Simon and Sullivan, 1993; Cobb-Walgren et al., 1995; Yoo et al., 2000; Villarejo and Sánchez, 2005; Bravo et al., 2007). Both approaches find positive relationships between advertising spend and brand equity. Researchers conclude that perceptions of high advertising spend contribute to developing a more positive perception of brand quality, higher brand awareness and stronger brand associations (e.g., Yoo et al., 2000).

Advertising expenditure can influence brand equity dimensions in several ways. When judging the product's quality, consumers use different intrinsic and extrinsic cues (Rao and Monroe, 1989). Perceived advertising spend is one such extrinsic quality cue (Milgrom and Roberts, 1986; Kirmani and Rao, 2000). Using laboratory experiments several studies report positive relations between perceived advertising spend and perceived quality (Kirmani and Wright, 1989; Kirmani, 1990; 1997; Moorthy and Hawkins, 2005). This result is also evident through work in shopping environments (Moorthy and Zhao, 2000). Thus, consumers generally perceive highly advertised brands as higher quality brands (Yoo et al., 2000; Bravo et al., 2007).

Similarly, large advertising investments can favor correct brand recall and recognition. Brand advertising spend can increase the scope and frequency of brand appearance, and as a consequence, the level of brand awareness (Chu and Keh, 2006; Keller, 2007). As such, the higher advertising spend, the higher awareness levels are likely to be (Yoo et al., 2000; Villarejo and Sánchez, 2005; Bravo et al., 2007).

Finally, advertising can also create favorable, strong and unique brand associations (Cobb-Walgren et al., 1995; Keller, 2007). Like brand awareness, brand associations arise from consumer-brand contact. As such, advertising can contribute to brand associations through its ability to create, modify or reinforce associations with each new contact. Hence, the higher a brand's advertising spend, the stronger and more numerous will be the associations in the consumer's mind (Bravo et al., 2007). All these arguments lead to the following hypothesis:

H1. Consumers' perceptions of a brand's advertising spend have a positive influence on: a) perceived quality; b) brand awareness and c) brand associations.

Researchers recognize that individuals' attitudes toward advertisements can also play an important role influencing brand equity (Cobb-Walgren et al., 1995; Keller and Lehmann, 2003; 2006; Bravo et al., 2007; Sriram et al., 2007). However, these issues have received little attention in brand equity research.

Advertising is a powerful way of communicating a brand's functional and emotional values (de Chernatony, 2010). In general, the effectiveness of this communication tool depends on its content (i.e., the message), the execution or how the ad conveys the message, and the frequency with which a consumer sees the advertisement (Batra et al., 1996; Kotler, 2000). As mentioned earlier, advertising creates brand awareness, links strong, favorable, and unique associations to the brand in consumers' memory, and elicits positive brand judgments and feelings (Keller, 2007). However to achieve these results, the advertising needs a suitable design and execution. In particular, one of the main concerns devising an advertising strategy relates to the creative strategy (Kapferer, 2004; Keller, 2007).

Through an original and innovative advertising strategy, organizations may be more likely to capture consumers' attention. In turn, consumers' attention can lead to higher brand awareness, higher perceived quality and contribute to forming strong, favorable and unique associations (Lavidge and Steiner, 1961; Aaker, 1991; Kirmani and Zeithaml, 1993; Villarejo, 2002). In short, besides increasing consumers' familiarity with a brand, advertising can shape consumers' perceptions of quality and other brand associations (Moorthy and Hawkins, 2005). The following hypothesis synthesizes the above arguments:

H2. Individuals' attitudes toward the advertisements undertaken for a brand have a positive influence on: a) perceived quality; b) brand awareness and c) brand associations.

3.2. Sales promotions

Sales promotions are also a key marketing tool in communication programs that influence brand equity (Valette-Florence et al., 2011). However, different types of promotional tools (e.g., monetary and non-monetary promotions) may have different effects on sales, profitability or brand equity (Srinivasan and Anderson, 1998).

Most previous researches on sales promotions focus on monetary promotions, such as price discounts and coupons. Although some discussion about the effect of this tool on brand equity still exists (Palazón-Vidal and Delgado-Ballester, 2005; Joseph and Sivakumaran, 2008), the empirical evidence suggests that monetary promotions have a negative impact on brand equity (e.g., Yoo et al., 2000).

Focusing on the direct effects on brand equity dimensions, monetary promotions are likely to have a negative influence on perceived quality and brand associations. The reduction in the internal reference price is one of the main reasons why monetary promotions have a negative influence on perceived quality. Consumers use price as an extrinsic cue to infer product quality (Milgrom and Roberts, 1986; Rao and Monroe, 1989; Dodds et al., 1991; Agarwal and Teas, 2002). As such, the influence of price discounting on consumers' reference price can lead to unfavorable quality evaluations (Mela et al., 1998; Raghubir and Corfman, 1999; Jørgensen et al., 2003; DelVecchio et al., 2006).

Similarly, monetary promotions can erode brand associations. Martínez et al. (2007) and Montaner and Pina (2008) reported that monetary promotions have a negative impact on brand image. In addition, monetary promotion campaigns are too short to establish long-term brand associations and can create uncertainty about brand quality (Winer, 1986), which results in more negative brand perceptions.

In short, the frequent use of price promotions has a negative impact on perceived quality and brand association dimensions because this tool leads consumers to think primarily about price, and not about the brand (Yoo et al., 2000). Hence, the third hypothesis states:

H3. Consumers' perceptions of a brand's monetary promotions have a negative influence on: a) perceived quality and b) brand associations.

Non-monetary promotions, such as free gifts, free samples, sweepstakes and contests, are becoming increasingly important in promotional strategies (Palazón and Delgado-Ballester, 2009). Surprisingly, academic research into the effects of non-monetary promotions on brand equity is scarce.

Recent studies show that non-monetary promotions may help reinforce brand equity (Palazón-Vidal and Delgado-Ballester, 2005; Montaner and Pina, 2008). Unlike monetary promotions, non-monetary promotions do not influence consumers' internal reference prices (Campbell and Diamond, 1990), and consequently are less likely to create a negative influence on perceived quality.

Likewise, non-monetary promotions can help differentiate brands, communicating distinctive brand attributes and contribute to the improved brand equity (Papatla and Krishnamurthi, 1996; Mela et al., 1998; Chu and Keh, 2006). While monetary promotions primarily relate to utilitarian benefits, non-monetary promotions relate to hedonic benefits (Chandon et al., 2000). These benefits, such as entertainment and exploration, are similar to experiential emotions, pleasure and self-esteem. Non-monetary promotions can therefore evoke more associations related to brand personality, enjoyable experiences, feelings and emotions. Furthermore, they link more favorable and positive brand associations to the brand (Palazón-Vidal and Delgado-Ballester, 2005).

Non-monetary promotion strategies can enhance brand equity (Montaner and Pina, 2008), positively influencing perceived quality and brand associations, as the following hypothesis postulates:

H4. Consumers' perceptions of a brand's non-monetary promotions have a positive influence on: a) perceived quality and b) brand associations.

3.3. Relationships among brand equity dimensions

Brand equity dimensions inter-relate. While some studies propose associative relationships among brand equity dimensions (e.g., Yoo et al., 2000; Pappu et al., 2005; 2006; Tong and Hawley, 2009), few researchers posit causal relations among them (e.g., Ashill and Sinha, 2004; Bravo et al., 2007).

This study builds on the traditional hierarchy of effects model to propose hypotheses about the relationships among brand equity dimensions. This model, also known as the standard learning hierarchy, follows the theory of reasoned action (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). This theory posits that attitudes and subjective norms influence intentions, which in turn affect behavior. Approaching a product decision as a problem-solving process, this hierarchy model suggests that consumers form beliefs about a product by seeking information about relevant attributes. Consumers then evaluate these beliefs and develop feelings about the product resulting in buying or rejecting the brand (Solomon et al., 2006). The traditional hierarchy of effects model assumes that consumers are highly involved in making their decision. According to this model, consumers are motivated to seek out information, evaluate alternatives and make a considered decision (Solomon et al., 2006).

Although some researchers challenge this framework and propose alternative hierarchy models (Krugman, 1965; 1966; Ray et al., 1973; Barry et al., 1987; Solomon et al., 2006), most researchers posit that this theory is a useful framework for studying the causal order among the dimensions of brand equity from the perspective of the consumer (Cobb-Walgren et al., 1995; Agarwal and Rao, 1996; Maio Mackay, 2001; Yoo and Donthu, 2001; Keller and Lehmann, 2003; 2006; Tolba and Hassan, 2009).

This framework depicts the evolution of brand equity as a consumer learning process: consumers' awareness of the brand leads to attitudes (e.g., perceived quality and brand associations), which in turn will influence attitudinal brand loyalty (Lavidge and Steiner, 1961; Gordon et al., 1993; Konecnik and Gartner, 2007).

The process of building brand equity begins with increasing brand awareness. Consumers must first be aware of a brand to later have a set of brand associations (Aaker, 1991). Brand awareness affects the formation and the strength of brand associations, including perceived quality (Keller, 1993; Pitta and Katsanis, 1995; Aaker, 1996; Na et al., 1999; Keller and Lehmann, 2003; Konecnik and Gartner, 2007). Thus, brand awareness is important as an antecedent to brand associations and perceived quality (Pitta and Katsanis, 1995; Keller and Lehmann, 2003).

When consumers acquire a more positive perception of a brand, loyalty results (Oliver, 1999). As such, brand associations and perceived quality are the previous step leading to brand loyalty (Keller and Lehmann, 2003). Thus, high levels of perceived quality and positive associations can enhance brand loyalty (Keller, 1993; Chaudhuri, 1999; Keller and Lehmann, 2003; Pappu et al., 2005). The following hypotheses summarize these arguments:

H5. Brand awareness has a positive influence on perceived quality.

H6. Brand awareness has a positive influence on brand associations.

H7. Perceived quality has a positive influence on brand loyalty.

H8. Brand associations have a positive influence on brand loyalty.

4. Methodology

4.1. Sample selection and data collection

The data to test the hypotheses came from a consumer survey in the United Kingdom. This study uses a sample of consumers unlike other studies that examine the influence of marketing communication elements on brand equity on student samples (e.g., Yoo et al., 2000).

Following previous works in this area (e.g., Yoo et al., 2000; Netemeyer et al., 2004), two criteria guide the selection of product categories and brands. The first criterion is to select product categories and brands that are widely available and well-known by UK consumers. This enables consumers to provide more valid and reliable responses and assures the reliability of the scales (Parameswaran and Yaprak, 1987). The second criterion is to choose product categories and brands that reflect a broad set of consumer products and provide some generalizability.

The use of rankings and secondary research to select product categories and brands is common in brand equity research (Cobb-Walgren et al., 1995; Krishnan, 1996; Netemeyer et al., 2004). Thus, this study used the Best Global Brands ranking by Interbrand.

Following the criteria noted above, the empirical research is based on three product categories, within each of which there are two mature brands, selected from the Interbrand ranking (i.e., six brands in total were chosen). All the brands selected are valuable but have different positions in the ranking. They also represent different marketing characteristics (e.g., price, market share, marketing strategies, etc.), which enhance the generalizability of the results (Yoo et al., 2000; Netemeyer et al., 2004). The brands are Adidas and Nike for sportswear, Sony and Panasonic for consumer electronics, and BMW and Volkswagen for cars. All brands are familiar and well known to UK consumers, which is an important criterion to understand brand equity (Krishnan, 1996). In addition, the variety of categories selected enhances the generalizability of the findings. Previous studies recognize these three categories as high involvement product categories (e.g., Chen, 2007; Ko et al., 2007).

The empirical study used six questionnaires, one for each brand. Each respondent only completed one version of the questionnaire and evaluated only one brand. To be eligible for the study, respondents needed to be aware of the focal brand on their questionnaire.

Collection of data took place at several locations in the city of Birmingham using quota sampling (by age and sex). Field workers collected the data during different times of the day and on different days. Of the 307 received questionnaires, 302 valid questionnaires were completed and the data from these 302 were analyzed. The profile of the sample represented the population of Birmingham, which is akin to the general national population of the United Kingdom. As such, 24.3% of respondents are 15 to 24 years old; 37.5% are 25 to 39 years old and the remainder are 40 to 69 years old. Males represent 50.9% of respondents.

4.2. Measurement

A review of previous studies provided the basis for the selection of the measures for the marketing communication tools and brand equity dimensions. The respondents assessed all items on seven-point Likert-type scales ranging from 1 (strongly disagree) to 7 (strongly agree).

Given that consumers have little knowledge of actual marketing efforts, measures of marketing communications rely on perceived marketing efforts (Yoo et al., 2000). These measures also link more directly with consumer psychology (Yoo et al., 2000; Valette-Florence et al., 2011). This study measures perceived advertising spend by adopting the scale proposed by Yoo et al. (2000). To measure individuals' attitudes toward the advertisements, this research proposes a three-item scale. The brand equity literature recognizes that the degree to which consumers perceive advertising as creative, original and different from other competing brands are important success factors for advertising (Kapferer, 2004; Keller, 2007). Interviews with experts also supported this view. Previous scales, however, did not include these three characteristics (e.g., LaTour et al., 1990; Henthorne et al., 1993). Therefore, the three-item scale used to measure individuals' attitudes toward the advertisements takes into account insights from the brand equity literature and experts' opinion. To measure the perceived monetary and non-monetary promotion intensities the study employs and adapts the three-item scale of Yoo et al. (2000). Specifically, price discounts and gifts were used as they are increasingly important in promotional strategies (Raghubir, 2005; Palazón and Delgado-Ballester, 2009).

The measurement of brand equity is consistent with the multi-dimensional conceptualization proposed within the consumer-based perspective. Drawing from the literature (Lassar et al., 1995; Aaker, 1996; Yoo et al., 2000; Netemeyer et al., 2004; Pappu et al., 2005; 2006), this research uses five items to measure brand awareness, four items to assess perceived quality, nine items to gauge brand associations and three items to measure brand loyalty.

Table 1 lists the items used to measure each construct.

5. Results

5.1. Measurement model

Exploratory and confirmatory techniques serve to assess the reliability, dimensionality and validity of the multi-item scales. Cronbach's alpha for all the constructs were above 0.70. Furthermore, the item-to-total correlations were all above the threshold of 0.30. Subsequently, exploratory factor analyses using principal components analysis and varimax rotation method suggested that the corresponding items of each scale grouped into a single factor (Hair et al., 2006). Only the items of brand associations dimension loaded on three different factors (items ASS1, ASS2 and ASS3 refer to perceived value; items ASS4, ASS5 and ASS6 refer to brand personality; and items ASS7, ASS8 and ASS9 refer to organizational associations). All the indicators were significant, with factor loadings higher than 0.5 and no cross loading. The explained variance exceeded 60% in each case.

This study follows Anderson and Gerbing (1988) two-step approach for structural equation modeling. The analysis uses the robust maximum-likelihood estimation method in EQS 6.1. Confirmatory factor analysis (CFA) suggested deleting item ASS6 since the R^2 was below 0.4. After this deletion, CFA of the multi-item scales produced an acceptable fit to the data (Table 1). All factor loadings are above 0.5 and are statistically significant. Likewise, the coefficients have a clear relation with the underlying factor ($R^2 > 0.3$). In addition, the average variance extracted (AVE) and composite reliability (CR) values are greater than 0.5 and 0.7 respectively (Bagozzi and Yi, 1988), which guarantee the internal validity of the measurement model. Results also support the discriminant validity of the scales. First, none of the confidence intervals around the correlation estimate between any two factors included one (Anderson and Gerbing, 1988). Further, the variance extracted for any two constructs was always greater than the squared correlation estimate (Fornell and Larcker, 1981).

5.2. Structural model

The next stage was to examine the hypothesized paths in the proposed model. Previously, since brand association dimension loaded on three different factors, the study employed averaged indicators of the three constructs (Baldauf et al., 2009).

The model conceptualized in Fig. 1 yielded a good overall fit. Table 2 shows the results.

With respect to the effect of the perception of advertising spend on perceived quality, brand awareness and brand associations, H1a, H1b and H1c respectively, the results only support hypothesis H1b. Thus, the higher the advertising spend, the higher the awareness levels are likely to be. One of the more noteworthy findings is the failure to support hypotheses H1a and H1c. Contrary to expectations, advertising spend has an insignificant influence on perceived quality and brand associations.

Individuals' attitudes toward the advertisements seem to play an important role in brand equity dimensions. As such, individuals' attitudes toward the advertisements have a positive and significant influence on perceived quality, as predicted in hypothesis H2a. Brand awareness and brand associations are also notably dependent on individuals' attitudes toward the advertisements, which support hypotheses H2b and H2c.

The findings also support H3a. Monetary promotions (i.e., price discounts) have negative effects on perceived quality. H3b suggested that monetary promotions would have a negative effect on brand associations. However, the data reveals a non-significant effect of this marketing element on brand associations. By contrast, results show that non-monetary promotions (i.e., gifts) have a positive and significant influence on perceived quality, supporting H4a. Similarly, results support hypothesis H4b, which suggested that non-monetary promotions positively relate to brand associations.

Table 1
Constructs and measurements results.

Constructs and measurement		λ (range)	CR	AVE
Perceived advertising spend Yoo et al. (2000)				
ADS1	Brand X is intensively advertised	0.82–0.89	0.90	0.75
ADS2	Brand X seems to spend a lot on its advertising compared to advertising for competing PC brands			
ADS3	The advertisements for brand X are frequently shown			
Individuals' attitudes toward the advertisements Ad hoc scale				
ATA1	The advertisements for brand X are creative	0.81–0.92	0.91	0.76
ATA2	The advertisements for brand X are original			
ATA3	The advertisements for brand X are different from the advertisements for competing brands of PC			
Monetary promotions Yoo et al. (2000)				
MPR1	Brand X frequently offers price discounts	0.79–0.95	0.92	0.80
MPR2	Brand X often uses price discounts			
MPR3	Brand X uses price discounts more frequently than competing brands of PC			
Non-monetary promotions Yoo et al. (2000)				
NMPR1	Brand X frequently offers gifts	0.79–0.94	0.91	0.78
NMPR2	Brand X often uses gifts			
NMPR3	Brand X uses gifts more frequently than competing brands of PC			
Brand awareness Yoo et al. (2000); Netemeyer et al. (2004)				
AWA1	I am aware of brand X	0.76–0.86	0.90	0.64
AWA2	When I think of PC, brand X is one of the brands that comes to mind			
AWA3	X is a brand of PC I am very familiar with			
AWA4	I know what brand X looks like			
AWA5	I can recognize brand X amongst other competing brands of PC			
Perceived quality Pappu et al. (2005, 2006)				
PQ1	Brand X offers very good quality products	0.88–0.93	0.93	0.77
PQ2	Brand X offers products of consistent quality			
PQ3	Brand X offers very reliable products			
PQ4	Brand X offers products with excellent features			
Brand associations Lassar et al. (1995); Aaker (1996); Netemeyer et al. (2004); Pappu et al. (2005, 2006)				
ASS1	Brand X is good value for the money	0.78–0.91	0.87	0.73
ASS2	Within PC I consider brand X a good buy			
ASS3	Considering what I would pay for brand X, I would get much more than my money's worth			
ASS4	Brand X has a personality	0.84–0.93	0.87	0.69
ASS5	Brand X is interesting			
ASS6	I have a clear image of the type of person who would use the brand X[a]			
ASS7	I trust the company which makes brand X	0.88–0.90	0.92	0.80
ASS8	I like the company which makes brand X			
ASS9	The company which makes brand X has credibility			
Brand loyalty Yoo et al. (2000)				
LOY1	I consider myself to be loyal to brand X	0.79–0.89	0.89	0.73
LOY2	Brand X would be my first choice when considering PC			
LOY3	I will not buy other brands of PC if brand X is available at the store			
Fit indices				
S-Bχ^2 = 706.11 (419) p<0.001; RMSEA = 0.05; CFI = 0.95; IFI = 0.95; NFI = 0.90; NNFI = 0.95				

Note: λ: range of standardized factor loading. PC: product category.
[a] Eliminated during validation process.

Results reveal a significant positive relation between brand awareness and perceived quality and brand awareness and brand associations, in support of H5 and H6. By contrast, the relationship between perceived quality and brand loyalty is negative and significant. This finding fails to support hypothesis H7. Finally, hypothesis H8 posited that brand associations enhance brand loyalty

Table 2
Structural model results.

	Hypotheses	Standardized β (t)
H1a	Advertising spend → Perceived quality	−0.12 (−1.28)
H1b	Advertising spend → Brand awareness	0.27** (2.72)
H1c	Advertising spend → Brand associations	0.02 (0.21)
H2a	Attitudes toward the advertisements → Perceived quality	0.20** (2.05)
H2b	Attitudes toward the advertisements → Brand awareness	0.21** (2.01)
H2c	Attitudes toward the advertisements → Brand associations	0.37** (3.72)
H3a	Monetary promotions → Perceived quality	−0.11* (−1.75)
H3b	Monetary promotions → Brand associations	−0.10 (−1.55)
H4a	Non-monetary promotions → Perceived quality	0.13* (1.82)
H4b	Non-monetary promotions → Brand associations	0.18** (2.68)
H5	Brand awareness → Perceived quality	0.56** (8.02)
H6	Brand awareness → Brand associations	0.42** (5.30)
H7	Perceived quality → Brand loyalty	−0.11** (−2.02)
H8	Brand associations → Brand loyalty	0.71** (9.90)
	Fit indices	
S-Bχ^2 = 630.04 (308) (p<0.001)	CFI = 0.94	NFI = 0.88
RMSEA = 0.06	IFI = 0.94	NNFI = 0.93

** p<0.05.
* p<0.1.

and the findings show a positive and significant coefficient supporting H8.

6. Conclusions

Brand equity is a key indicator of brand success. Understanding the drivers that contribute to and detract from the strengthening of brand equity is therefore critical. The purpose of this study was to examine the impact of advertising and sales promotions on brand equity. The research analyzed both advertising spend and individuals' attitudes toward the advertisements. Similarly, the study addressed promotions from both monetary and non-monetary perspectives. In addition, the study attempted to understand how the underpinning brand equity dimensions inter-relate.

This study shows that individuals' attitudes toward the advertisements, which have received little research attention in the brand equity context, are important when building brand equity. Findings show that by using an original, creative and different advertising strategies, companies can develop higher brand awareness and positive perceptions of their brands.

This research also reveals that perceived advertising spend has a positive effect on brand awareness. However, advertising investments do not necessarily enhance perceived quality and brand associations. Several factors can explain this noteworthy finding. First, advertising spend can reach a saturation point beyond which further spend does not significantly contribute to creating brand equity (Chu and Keh, 2006). In this sense, Wang et al. (2009) find negative effects of advertising spend in brand equity. The erosion of traditional advertising to the new media and over-advertising can explain this negative effect (Wang et al., 2009). Further, Keller and Lehmann (2003) posit that the amount of financial investment in marketing does not guarantee success in terms of growing brand equity. By contrast, these authors state that the key factor to increase brand equity lies in the qualitative aspects of the marketing program. That is, advertising strategies can be ineffective in terms of advertising quantity vs. quality (Eastlack and Rao, 1989). Thus, as this research shows, individuals' attitudes toward the advertisements play a key role influencing perceived quality, brand awareness and brand associations.

As suggested in the literature, the effect of sales promotions on brand equity differs according to the type of promotional tool used. Monetary promotions (i.e., price discounts) have a negative influence on perceived quality whereas non-monetary promotions (i.e., gifts) have a positive effect on perceived quality and brand associations. Despite the fact that monetary promotions have a non-significant impact on brand associations, these results are interesting.

Finally, findings indicate that brand equity dimensions inter-relate. Brand awareness has a positive influence on perceived quality and brand associations, which in turn influence brand loyalty. Contrary to predictions, perceived quality has a small but negative influence on brand loyalty. This finding indicates that, consistent with previous studies (e.g., Bravo et al., 2007), quality is not a guarantee of a successful brand.

Several managerial implications arise from these results. First, advertising is an important marketing communication tool for companies influencing brand equity dimensions. The higher consumers perceive a brand's advertising spend, the more likely the brand is to have a higher awareness. However, investments in this variable are not sufficient to positively influence the associations related to the brand. In this context, companies should pay attention to the design of their advertising campaigns, ensuring they are original and creative.

Second, marketing managers should be attentive to the effects that promotional actions have on consumers' perceptions of brand equity. While price promotions are common, the results of this study indicate that frequent use of monetary promotions dilutes some brand equity dimensions. Consequently, brand managers should be cautious about using this type of promotion. By contrast, using non-monetary promotional tools, such as gifts, seems wiser as they contribute to growing brand equity.

Finally, findings imply that managers should pay attention to the causal order among brand equity dimensions. Managers should first build brand awareness as a means of anchoring the different associations consumers have of a brand, such as perceived value, personality or perceived quality. Later, and as a way of generating greater loyalty, managers should focus on brand associations.

As with any research, several limitations exist. First, future research could examine additional antecedents of consumer-based brand equity to better understand the brand equity creation process. Second, future studies could combine actual measures of marketing mix elements with perceptual measures. Likewise, future research could include additional aspects related to individuals' attitudes toward the advertisements and different types of sales promotions. Third, the high involvement product categories, brands studied and their characteristics (e.g., country of origin) are likely to influence the results. Further research could extend these findings by considering low involvement product categories and different brands. Similarly, future studies could test the model employing product categories or brands as a unit of analysis. Such a study would require a large sample size for each unit of analysis to reach reliable results. Finally, future research should consider the applicability of findings in other countries and cultures.

This study is a step toward a fuller understanding of the role of advertising and sales promotions in the brand equity creation process. Despite the limitations, the findings reported in this paper contribute to the literature and offer some new insights into how managers can manage this important intangible asset.

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