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When comparative valence frame affects brand extension evaluations: the moderating role of parent-extension fit

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This research examines how comparative valence frame influences brand extension acceptance when parent-extension fit matters. The results of this research show that a positive comparison-framed ad message elicits more favourable extension evaluations and greater purchase intentions than a negative comparison-framed ad message under the similar extension condition, while both positive and negative comparison-framed ad messages contribute equally to brand extension evaluations and purchase intentions under the dissimilar extension condition. The findings also suggest that perceived extension risk serves as a critical mediator that underlies the interactive impact of comparative valence frame and parent-extension fit on brand extension evaluations. Theoretical and practical implications for advertising message strategies in brand extensions are discussed.

Keywords: comparative valence frame; parent-extension fit; perceived extension risk

With the practical impetus for leveraging strong brand equity in a new product category, marketing practitioners and researchers have maintained a keen interest in brand extensions, which refer to a branding strategy introducing a host of new products under existing brand names. More than 80% of new product introductions are brand extensions (Fedorikhin, Park, and Thomson 2008). For example, Calvin Klein has successfully extended its line from clothing to diverse product categories, such as sunglasses, perfume, and home furniture. A considerable amount of scholarly attention has been given to examining how consumers evaluate brand extensions (Aaker and Keller 1990; Boush and Loken 1991; Broniarczyk and Alba 1994; Kim and Yoon 2013; Loken, Joiner, and Houston 2010; Park, Milberg, and Lawson 1991). In particular, investigating the extent to which a parent brand transfers successfully into various other categories and the conditions under which brand extensions are more likely to succeed has ignited high levels of managerial and academic interest. While prior research has documented that consumer evaluations of brand extensions are primarily affected by parent-extension fit (Aaker and Keller 1990; Boush and Loken 1991; Broniarczyk and Alba 1994; Park, Milberg, and Lawson 1991; Völckner and Sattler 2006), it has often neglected to pin down a more common marketplace reality, namely *competition*, independent of the fit-extension relationship (Milberg, Sinn, and Goodstein 2010). Some scholars have pointed out that the absence of competition is typical of most brand extension research, which involves the singular evaluation of a brand extension (Keller and Aaker 1992; Yeung and Wyer 2005).

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Research to date has gradually turned to understanding the effects of competitive positioning strategies in enhancing acceptance of brand extensions (Bei, Chu, and Shen 2011; Kapoor and Heslop 2009; Milberg, Sinn, and Goodstein 2010). Undoubtedly, a key consideration in the development of advertising strategy involves how to build a strong brand position in a competitive marketplace (Miniard et al. 2006). In an effort to communicate the brand's superiority, comparative advertising has been frequently used as an effective way to position brand extensions in the consumer's mind.

Consider two recent advertisements from the Microsoft Surface comparing its new tablet device and Apple's iPad. The first of the ads presents the superiority of its tablet over Apple's iPad by focusing on keyboard options, improved multi-tasking, and expandable storage, with a more affordable price tag. In the second of the ads, Microsoft's Surface criticizes Apple's iPad which doesn't come with a physical keyboard, can't multitask, and lacks expandable storage, with a higher price tag. These examples illustrate the strategic use of comparative valence frame – the extent of perceived derogation in comparative advertising (C.C. Chang and Chou 2008) – in an attempt to enhance the success of brand extension in which the parent brand name (e.g., Microsoft) is assigned to the new product line (e.g., Surface tablet device). In this research, we examine the conditions under which different types of comparative advertising – comparative valence frame – are most effective in the extension context, particularly when parent-extension fit matters.

Although many investigations have examined the relative effectiveness of positive versus negative comparison on advertising persuasion and information processing (C.C. Chang and Chou 2008; Jain 1993; Jain and Posavac 2004; Jain et al. 2007; Muehling, Laczniak, and Ehrich 2013), no prior research examining whether the impact of comparative valence frame on brand extension acceptance is contingent on parent-extension fit could be found in the published literature. Given the practical usefulness of comparative valence frame for promoting brand extensions in competitive contexts, it is imperative for marketers and advertisers to understand when and why a positive or negative comparison-framed message will exert persuasive effects on consumers' judgments of a new brand extension. The primary purpose of this study, therefore, is to examine how a comparative advertising frame that differs with respect to the valence of comparison (i.e., positive or negative) can influence consumer evaluations of brand extensions and purchase intentions. Specifically, this study is designed to explore whether comparative advertising frame will have varying persuasive impacts depending on different levels of parent-extension fit. Second, this study aims to investigate the psychological mechanisms underlying the interaction between comparative valence frame and parent-extension fit, focusing on perceived extension risk. Understanding the combined impact of comparative valence frame and parent-extension fit will help practitioners to fine-tune their advertising message strategies in the context of brand extensions. Figure 1 displays the conceptual framework of this research.

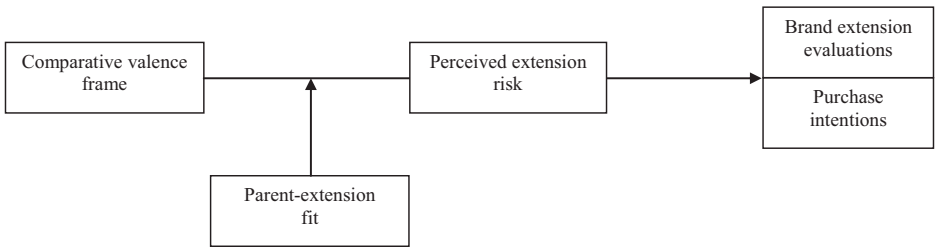

Figure 1. Conceptual framework.

Theoretical background

The importance of parent-extension fit

To date, much of the existing literature on brand extensions has identified a number of factors that determine whether a new brand extension introduced in the marketplace is evaluated favourably or not. Among these factors, research suggests that the most critical ingredient of brand extension success is the parent-extension fit that reflects the extent to which the extension product is physically, conceptually, or contextually similar to the parent brand (Yeo and Park 2006). Substantial evidence has supported the effect of parent-extension fit on consumers' acceptance of brand extensions, showing that the higher the perceived fit of the extension with its parent brand, the more favourable the extension evaluation (e.g., Aaker and Keller 1990; Boush and Loken 1991; Broniarczyk and Alba 1994; Klink and Smith 2001; Park, Milberg, and Lawson 1991; Völckner and Sattler 2006). The importance of fit or congruence in determining the effects of communication strategies has been also described in various contexts, such as ad regulatory focus (Baek and Reid 2013; Cornelis, Adams, and Cauberghe 2012), cultural values (Cui et al. 2012), and sponsorship (Groza, Cobbs, and Schaefers 2012). To illustrate, Groza, Cobbs, and Schaefers (2012) showed that a sponsor brand incongruent to the event is detrimental to the brand equity of the sponsored enterprise, suggesting that this negative effect can be attenuated by increasing the number of congruent sponsors, which may enhance the cognitive processing load required of the consumer.

Categorization theory has been frequently used as a theoretical basis to examine the underlying process through which consumers evaluate brand extensions. This theory postulates that people tend to divide the world of objects into categories in order to simplify and interpret a complicated environment in an efficient manner (Ozzanne, Brucks, and Grewal 1992). Linking this theorizing to the context of brand extension, it has been asserted that brands can be viewed as categories (Aaker and Keller 1990; Boush 1993) and the categorization of a product as a part of a brand can influence a series of subsequent information processes that underlie inferences and memory processes (Bless and Greifeneder 2009). In particular, when faced with an extension product, consumers are likely to accept the extension product that would represent an individual member of the parent brand category because brands as categories have come to be associated with a number of product-related attributes over time.

Drawing upon the dual-process model of impression formation (Fiske 1982; Fiske and Pavelchak 1986), consumers' reactions to brand extensions seem to involve an underlying evaluation mechanism through either a categorical or a piecemeal processing, though the two approaches are not mutually exclusive (Aaker and Keller 1990; Boush and Loken 1991; Nan 2006). When consumers encounter a new extension, they initially attempt to determine whether or not the brand extension belongs to the parent brand category. When the extension is successfully assigned category membership (i.e., high perceived fit), consumers tend to simply transfer their evaluation of the parent brand to the extension through categorization judgments.

On the other hand, a piecemeal-based approach to evaluation may occur when the relationship between the parent brand and the extension product is perceived to be relatively low (Nan 2006). In other words, when the extension is not assigned category membership, consumers are likely to evaluate a brand extension on the basis of the attribute-based information in order to reconcile the new product with the existing category. In this view, consumers with a piecemeal-based approach will engage in much more cognitive effort than those with a categorization-based

approach because they carefully scrutinize all the information that pertains to any specific attributes of brand extension.

Comparative valence in advertising

Advertising has become an essential part of enhancing consumer evaluations of brand extensions (Bridges, Keller, and Sood 2000; Dens and Pelsmacker 2010). Given the importance of brand extension fit as a key determinant of extension acceptance (e.g., consumers typically disapprove of the extension if they perceive the extension to be inconsistent with the parent brand), much scholarly work has been devoted to examining the role of advertising in increasing the degree of perceived fit and consequently its effectiveness on brand extensions evaluations (Boush 1993; Bridges, Keller, and Sood 2000; Goodstein 1993; Kim and Yoon 2013). Indeed, the success of brand extensions might be achieved by developing and communicating a positioning strategy. This is because positioning brand extensions strategically plays a critical role in influencing the level of perceived fit relative to brand extension knowledge that can stem from the parent brand and extension category (Sheinin 1998). In order to harness the potential of positioning strategy, comparative advertising has been frequently used to associate the new brand with the well-known, dominant brand in the category or to differentiate the advertised brand from the comparison brand (Bei, Chu, and Shen 2011). Clearly, comparative advertising provides specific product attribute information (e.g., physical features, quality, and superiority of the product) in an effort to make similarity-based inferences or differentiation-based inferences (Dröge and Darmon 1987; Pechmann and Ratneshwar 1991).

Prior research has extended the basic premise of categorization theory to comparative advertising persuasion. Since comparative advertising is conducive to consumers categorizing the advertised brand relative to the comparison brand, it is most likely to have an associational effect when the featured attribute is typical of the product category (Pechmann and Ratneshwar 1991). For example, Sujan and Dekleva (1987) adopted a categorization approach to examine the effects of comparative advertising focusing on the moderating effects of category expertise. The authors showed the differences in experts' and novices' references to comparative and noncomparative advertising at different levels of product specificity. In this sense, categorization processes may play an important role in making inferences about product attributes of the advertised brand in comparative advertising. Snyder (1992) concluded that the categorization framework may be useful for explaining the effects of different types of comparative advertising, including association of the new brand with positive category attributes and differentiation of the new brand from comparison brands on evaluative dimensions.

Among various message features in comparative advertising, comparative valence frame can differ with respect to a positively versus a negatively framed comparative message, depending on whether the advertisement indulges in a nonderogatory or a derogatory comparison (Jain 1993; Jain and Posavac 2004). Specifically, a positive comparative advertisement emphasizes the superiority of the target brand over the competing brand in a nonderogatory manner (e.g., Brand X is good but our brand is excellent; C.C. Chang and Chou 2008; Jain and Posavac 2004). It implicitly acknowledges that the target brand has more of the same attributes or some additional attributes that the competing brand does not possess (Jain 1993). In contrast, a negative comparative advertisement emphasizes the weakness of the competing brand (e.g., Brand X is not good but our brand is good; C.C. Chang and Chou 2008; Jain and Posavac 2004). It also provides negative

outcomes and attributes associated with the competing brand that are either reduced in the target brand or not present at all (Jain 1993). In general, positive comparative ads have been shown to elicit higher believability, better brand attitudes, and fewer negative attributions than negative comparative ads (Jain and Posavac 2004). Recently, Muehling, Laczniak, and Ehrich (2013) found that a negatively framed comparative ad as opposed to a positively framed comparative ad yields less favourable ad evaluations and sponsor brand beliefs among the competing brand users, while no significant effects of comparative valence frame are observed for nonusers.

Research hypotheses

Previous persuasion research found that the relative effectiveness of positive versus negative framing varies by the extent of cognitive elaboration that has been discussed within the framework of information processing (Maheswaran and Meyers-Levy 1990; Meyers-Levy and Maheswaran 2004; Shiv, Britton, and Payne 2004; Shiv, Edell, and Payne 1997). Specifically, when the level of cognitive elaboration is low (i.e., heuristic/peripheral processing), positive framing is generally found to be more effective than negative framing. Conversely, when the level of cognitive elaboration is high (i.e., systematic/central processing), negative framing tends to be more persuasive than positive framing (Maheswaran and Meyers-Levy 1990; Meyers-Levy and Maheswaran 2004). According to the dual-process models of persuasion, such as the Heuristic−Systematic Model (Chaiken 1980) and the Elaboration Likelihood Model (Petty and Cacioppo 1981), there are two distinct modes of information processing: systematic/central and heuristic/peripheral modes. The systematic/central mode reflects an attitude change process that is characterized by a careful scrutiny of message content when people have high motivation or cognitive ability to expend energy for elaboration, while they tend to engage in the heuristic/peripheral mode when their motivation or cognitive resources are low (Yoon, Choi, and Song 2011).

Building on the basic principles of category-based versus piecemeal processing we discussed earlier, the extent of parent-extension fit can serve as a heuristic cue used in making extension evaluation-based inferences and judgments under certain conditions, especially when consumers lack the motivation or ability to critically evaluate such extension information (Loken, Barsalou, and Joiner 2008). The heuristic value of category membership based on increased perceived fit is in accordance with the notion of the 'representativeness heuristic,' namely the extent to which two stimuli are considered to belong to the same overall category based on shared similarities (Tversky and Kahneman 1974). As suggested by Kardes (2002), the representativeness heuristic might be used to predict whether consumers categorize a new product as a true innovation (and hence place it in a category of innovative products) or perceive it as similar to existing products (and place it in a category of established products; see Fennis and Stroebe 2010 for a review).

In sum, higher extension fit provides a heuristic means of evaluating brand extensions through category-based processing because it should be cognitively easier for consumers to think about the extent to which the quality of the parent brand is transferable to the extension product. In contrast, when extension fit is lower, consumers tend to activate greater elaboration (or careful scrutiny) through piecemeal processing of new extension product features in such a way as to resolve extension incongruence. In accord with previous research (e.g., Maheswaran and Meyers-Levy 1990), which suggests that positive framing is more linked to heuristic/peripheral processing and negative framing is more

related to systematic/central processing, we hypothesize that comparative valence frame (i.e., positive or negative) interacts with parent-extension fit and thereby influences consumer acceptance of brand extensions. That is, it is expected that a positive comparison-framed ad message is likely to be more persuasive than a negative comparison-framed ad message under a similar extension condition. The converse will occur under a dissimilar brand extension. Therefore, the following hypotheses are proposed:

H1: For similar brand extensions, a positive comparison-framed ad message will lead to (a) more favourable extension evaluations and (b) greater purchase intentions than a negative comparison-framed ad message.

H2: For dissimilar brand extensions, a negative comparison-framed ad message will lead to (a) more favourable extension evaluations and (b) greater purchase intentions than a positive comparison-framed ad message.

Following from the preceding discussion, we propose that an underlying interaction between comparative valence frame and parent-extension fit will be mediated by the perceived risk associated with the extension product. The conceptualization of perceived risk has been widely acknowledged within the basic premise that consists of the two primary components: uncertainty and negative consequences of a choice (Cunningham 1967). Simply put, perceived risk can be defined as consumers' uncertainty when they cannot anticipate the consequences of their purchase decisions (Shiffman and Kanuk 2000). Prospect theory (Tversky and Kahneman 1981) provides valuable insight into why people respond differently to a positive- or negative-framed comparative message. Central to this theory is that individuals are rational – they are supposed to assess the expected values of different risky options when they make decisions. Specifically, people are generally risk averse when options are framed positively with respect to the potential gains, but they are risk seeking when options are framed negatively with respect to the potential losses (Maheswaran and Meyers-Levy 1990). In support of the foregoing theoretical argument, there is empirical evidence that positive framing is more effective for products with low perceived risk, whereas negative framing is more effective for products with high perceived risk (C.T. Chang 2007).

On the other hand, perceived risk plays a critical role in determining the effects of parent-extension fit (DelVecchio and Smith 2005; Klink and Smith 2001; Yeo and Park 2006). In fact, brand extensions often carry perceived risk of an extension product or uncertainty about the product quality for consumer decision making (Keller and Aaker 1992). As observed by Smith and Andrews (1995), as the level of perceived fit decreases, perceived risk increases, which in turn has a negative impact on brand extension evaluations. Yeo and Park (2006) further demonstrated that the level of perceived risk would be particularly high when the extension is dissimilar to the parent brand, because the transferability of the parent brand's quality to the extension product would be questionable. For example, a dissimilar extension, such as Coke shampoo or Kodak shoes, might be perceived to be highly risky, while a more similar extension, such as a Coke energy drink and a Kodak digital photo printer, to which manufacturing capabilities or favourable images of the parent brand can be presumed to be easily transferable, would be perceived to be much less risky.

As a whole, a similar extension might lead to perceptions of lesser risk (preferred by a positive-framed comparative message) and a dissimilar extension might lead to perceptions of greater risk (preferred by a negative-framed comparative message). Therefore,

we expect that the interaction between comparative valence frame and parent-extension fit on extension evaluations occurs through perceived extension risk. This leads to the following hypothesis:

H3: The interactive effect of comparative valence frame and parent-extension fit on consumer evaluations of brand extensions will be mediated by perceived extension risk.

Method

Research design

The main experiment used a 2 (parent-extension fit: similar versus dissimilar) × 2 (comparative valence frame: positive versus negative) between-subjects factorial design. This study was administered through an online survey-based procedure. Participants were provided with a URL which they accessed to complete the online experimental tasks. Using the Random Link Generator (Baek, Kim, and Yu 2010), they were randomly assigned to the different experimental conditions. Although the degree of control over web-based studies is lower than for studies conducted in a lab environment, there is evidence for a close comparative match between the results of psychological research conducted in lab situations and via the Internet (Krantz and Dalal 2000).

Stimuli development

Previous research has developed the conceptualization and operationalization of perceived fit based on the associations consistent with the product category features (i.e., category fit) or the parent brand image (i.e., image-fit) (Kim and Yoon 2013). Given that a brand can be viewed as a collection of associations – product-related attributes, image, benefits, user imagery, and usage situations (Bridges, Keller, and Sood 2000; Keller 1993) – we attempt to integrate both operational definitions of the perceived fit between the parent brand and the extension product in order to better understand the nature of brand extensions. Therefore, parent-extension fit was manipulated as to whether extensions hold the product category of the parent brand constant on the basis of category-level and brand-level consistency, and measured by the Bridges, Keller, and Sood (2000) validated scale that reflects the product- and nonproduct-related associations.

This study employed a real brand name because the use of actual brands may have generated consumer knowledge structures that are more stable and more resistant to reconfiguration than the use of fictitious brands (Bridges, Keller, and Sood 2000). However, hypothetical extension products for the actual brand were chosen to provide a representative range of parent-extension fit and rule out other extraneous elements. This procedure was expected to ensure successful manipulations of the independent variables and thus help increase the internal validity of the main experiment.

Preceding this, three pretests were conducted to select the appropriate fictitious extension products for developing the stimulus materials. In the first pretest, using 41 college students (41.5% male and 58.5% female), we selected athletic shoes as the appropriate parent product category because it had the highest proportions of product usage, product familiarity, and product involvement, respectively, among this population. The Nike brand was chosen as the brand of athletic shoes because it was relevant to subject samples, could elicit relatively specific brand associations, and could be perceived as high quality and familiar (Aaker and Keller 1990). The second pretest was designed to identify potential similar and dissimilar extension products for Nike. Specifically, a total of

40 participants (47.5% male and 52.5% female) were first asked to list any product features, benefits, usage situations, images, and other attribute associations that came to mind when they thought of Nike. These free-association tasks helped to ensure that participants generated a set of similar or dissimilar extension categories on the basis of attribute associations with each parent brand. For Nike, the top three associations were 'shoes,' 'energetic/fit,' and 'maximum performance.' Next, participants were instructed to list up to three extension product categories that might be similar or dissimilar to Nike based on the attribute associations described above. Of potential extension product categories that emerged from the open-ended responses to the level of fit, *bicycle* and *deodorant* were chosen as similar extensions, while *dress shoes* and a *digital camera* were selected as dissimilar extensions for Nike. The hypothetical extensions needed to be reasonable and not illogical, but had to have potential for heterogeneity in light of the degree of parent-extension fit. The selected extensions have yet not been introduced to the US market.

In the third pretest, a new sample of 31 college students (41.9% male and 58.1% female) was asked to verify the level of perceived fit of potential extension products. Parent-extension fit was measured by using four different 7-point scales (1 = strongly disagree and 7 = strongly agree) adopted from Bridges, Keller, and Sood (2000): appropriateness of the extension for the parent brand, degree to which the brand extension makes sense, fit between the parent brand and the extension product in terms of the attribute associations (e.g., product features, benefit, usage situation, and brand image), and understanding of the connection between the parent brand and the extension product. Taking into account the highest and lowest levels of perceived fit ratings, a Nike bicycle was selected as a high fit extension (M = 5.88) and a Nike digital camera as a low fit extension (2.61). The difference between high (bicycle) and low (digital camera) fit extension products was statistically significant ($t\,(30) = 11.41, p < 0.001$). It is important to note that this manipulation check was repeated with a larger sample size in the main experiment to verify the significance difference between similar and dissimilar extension products.

In order to manipulate comparative valence frame, a set of print advertisements were designed to elicit either a positive or a negative comparison of the target extension with the competitive brand. The format of the ad stimuli was adapted from previous research on comparative valence (C.C. Chang and Chou 2008; Jain and Posavac 2004; Shiv, Edell, and Payne 1997). In particular, our stimuli closely resembled real-world applications of framed comparative ads. As mentioned earlier, for instance, Microsoft's Surface ran a series of ads criticizing the Apple iPad's inability to run multiple apps at the same time, its lack of built-in productivity apps, and its nonexpandable storage (i.e., negative comparison-framed message), while comparing the specs to show that its tablet device is less expensive, and has a larger display size and a longer battery life than the Apple iPad (i.e., positive comparison-framed message). The manipulative validity of the ad stimuli regarding comparative valence frame was verified in the main experiment.

Based on focus group discussions with 24 college students, four key attributes were identified for each extension product (bicycle – performance drive, comfortable ride, frameset, and weight; digital camera – image quality, dynamic range, shutter speed, and battery life). These attributes were incorporated into the final target ads along with addressing the competing brand of each product (i.e., Trek bicycle and Canon digital camera). Specifically, a positive comparison-framed ad message emphasized the advantages of the target extension's attributes and benefits without any derogative words for the similar extension product (e.g., 'Nike's bike is superior to the Trek mountain bike. Compared to the Trek mountain bike, the new Nike bike provides higher performance drive, more comfortable ride, more durable frameset, and lighter weight') and for the

dissimilar extension product (e.g., 'Nike's digital camera is superior to the Canon PowerShot. Compared to the Canon PowerShot, the new Nike digital camera provides higher image quality, wider dynamic range, faster shutter speed, and longer battery life'). In contrast, a negative comparison-framed ad message highlighted the disadvantages of the competitive brand by using derogatory words for the similar extension product (e.g., 'The Trek mountain bike is inferior to Nike's bike. Compared to the new Nike bike, the Trek mountain bike provides lower performance drive, less comfortable ride, less durable frameset, and heavier weight') and for the dissimilar extension product (e.g., 'The Canon PowerShot is inferior to Nike's digital camera. Compared to the new Nike digital camera, the Canon PowerShot provides lower image quality, narrower dynamic range, slower shutter speed, and shorter battery life'). Except for the manipulation of comparative valence frame, all other aspects of the ad stimuli were identical in size, layout, and background.

Participants and procedure

A total of 313 undergraduate students (32.5% male and 67.5% female) recruited from a large university in the southeastern US participated in the main experiment in exchange for extra credit. Participants ranged in age from 18 to 35 (M = 20.3). Emails were sent to a convenience sample of college students, which contained the URL link for the online experimental tasks to distribute the stimuli and the questionnaire. Participants were asked to view either a positive or negative comparison-framed ad message for extension product categories. After reading each ad message, they completed a self-administered questionnaire which included the dependent variables, manipulation checks, and demographic questions. Each session lasted for approximately 30 minutes.

Dependent measures

The dependent variables of interest included brand extension evaluations and purchase intentions. Adopted from prior brand extension research (e.g., Aaker and Keller 1990; Smith and Park 1992; Yeo and Park 2006), extension evaluations for Nike (bicycle or digital camera) were measured using five 7-point semantic differential items anchored with 'bad/good,' 'inferior/superior,' 'unfavourable/favourable,' 'poor quality/good quality,' and 'dislikable/likable' The coefficient alpha for these five items was 0.94. The five items were averaged to form an index for brand extension evaluations. Purchase intention was measured by four items adopted from Dodds, Monroe, and Grewal (1991). Participants were asked to indicate their agreement with each of the following statements on a 1 to 7 scale (1 = strongly disagree and 7 = strongly agree): 'I am likely to purchase a Nike bicycle (digital camera) next time I need a new bicycle (digital camera);' 'If I were going to buy a bicycle (digital camera), I would consider buying a Nike bicycle (digital camera);' 'I would never buy a Nike bicycle (digital camera) (reverse coding)' and 'I would recommend a Nike bicycle (digital camera) to my friends or relatives who are going to buy a bicycle (digital camera).' Cronbach's alpha for this scale was 0.89. The four items were averaged to form an index for purchase intentions. Additionally, participants' perceived extension risk was measured using the validated scale adopted from Laroche, Bergeron, and Goutaland (2003). Participants were also asked to indicate their agreement with each of the following statements on a 1 to 7 scale (1 = strongly disagree and 7 = strongly agree): 'I am sure that I will make a mistake if I purchase a Nike bicycle (digital camera),' 'Purchasing a Nike bicycle (digital camera) will cause me lots of trouble,' and 'I am sure that I will incur some risk if I buy a Nike bicycle (digital

camera).' Cronbach's alpha for this five-item measure was 0.90. The three items were averaged to form an index for perceived risk. Finally, participants were asked about their familiarity with the competing brand on a 7-point semantic differential scale (1 = Not at all familiar and 7 = Very familiar).

Results

Manipulation checks

To verify the manipulation of parent-extension fit, participants were asked to indicate the perceived fit between the parent brand and its extension product using the same measures as in the pretest. Adopted from Bridges, Keller, and Sood (2000), the four measures were assessed along 7-point scales (1 = strongly disagree and 7 = strongly agree): (1) 'A bicycle (digital camera) is an appropriate extension for Nike;' (2) 'In general, a bicycle (digital camera) from Nike makes sense;' (3) 'A bicycle (digital camera) is similar to Nike in terms of its attribute associations (e.g., product feature, benefit, or brand image);' and (4) 'I can understand the connection between Nike and a bicycle (digital camera).' As expected, participants perceived the extension as more congruent to the parent brand in the similar extension condition (M = 5.51, SD = 1.28) than in the dissimilar extension condition (M = 2.23, SD = 1.22). There was a statistically significant difference between the similar and dissimilar extension conditions (F (1, 311) = 527.21, $p < 0.001$). Thus, the parent-extension fit manipulation was successful.

As a manipulation check on comparative valence frame, participants were asked to indicate their agreement with each of the following statements on 7-point scales (1 = strongly disagree and 7 = strongly agree) adopted from prior research (C.C. Chang and Chou 2008; Jain 1993; Jain and Posavac 2004): (1) 'The ad was hostile to the comparison brand,' (2) 'The ad derogated the comparison brand,' (3) 'The ad criticized the comparison brand,' (4) 'The ad tried to damage the reputation of the comparison brand,' and (5) 'The ad put down the comparison brand.' The manipulation check data revealed that participants in the positive comparison condition (M = 3.55, SD = 1.29) perceived less derogation than did those in the negative comparison condition (M = 5.30, SD = 1.53). The difference between the positive and negative comparison conditions was statistically significant (F (1, 311) = 118.13, $p < 0.001$). Therefore, the comparative valence manipulation was successful.

As shown in Table 1, an analysis of covariance (ANCOVA) was performed to compare the appropriate cells on the adjusted means for brand extension evaluations and

Table 1. Analysis of covariance (ANCOVA) results for dependent variables.

	F-values	
Source of variation	Brand extension evaluations	Purchase intentions
Main effects		
Comparative valence frame (C)	5.96*	2.59
Parent-extension fit (P)	77.39***	109.05***
Interaction effect		
C × P	4.13*	1.36
Covariate		
Competing brand familiarity	8.33**	4.31*

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

purchase intentions. The analysis treated the perceived fit between the parent brand and the extension (similar versus dissimilar), and the valence of comparative ad frame (positive versus negative). Furthermore, competing brand familiarity was incorporated as a covariate because the covariate had a positive influence on extension evaluations (F (1, 304) = 8.33, $p < 0.01$), and on purchase intentions (F (1, 304) = 4.31, $p < 0.05$).

Brand extension evaluations

In line with expectations, a significant main effect of parent-extension fit emerged for extension evaluations (F (1, 304) = 77.39, $p < 0.001$). Specifically, participants evaluated brand extensions more favourably in the similar extension condition (M = 5.31, SD = 1.07) than in the dissimilar extension condition (M = 4.25, SD = 1.05). There was also a significant main effect of comparative valence where the positive comparative ad (M = 5.05, SD = 0.93) elicited more favourable extension evaluations than the negative comparative ad (M = 4.63, SD = 1.17; F (1, 304) = 5.96, $p < 0.05$).

The interaction between perceived fit and comparative valence frame was observed for brand extension evaluations (F (1, 304) = 4.13, $p < 0.05$). Planned comparisons indicated that when the fit between the parent brand and the extension is perceived to be high (i.e., similar extension), participants exposed to the positive comparative frame evaluated brand extensions more favourably than those exposed to the negative comparative frame (M positive comparison = 5.57 versus M negative comparison = 5.04, F (1, 304) = 10.99, $p < 0.01$). Thus, H1a was strongly supported. In contrast, when the fit between the parent brand and the extension product is perceived to be low (i.e., dissimilar extension), no significant difference between participants in the positive and negative comparative frame surfaced for brand extension evaluations (M positive comparison = 4.28 versus M negative comparison = 4.23, F (1, 304) = 0.08, $p = 0.78$). Hence, H2a was not supported.

Purchase intentions

A significant main effect of parent-extension fit surfaced for purchase intention (F (1, 304) = 109.05, $p < 0.001$). Participants reported stronger purchase intention in the similar extension condition (M = 4.87, SD = 1.17) than in the dissimilar extension condition (M = 3.39, SD = 1.07). However, there were no main effects of comparative valence (F (1, 304) = 2.59, $p = 0.10$). Furthermore, there was no significant interaction effect of perceived fit and comparative valence frame on purchase intention (F (1, 304) = 1.36, $p = 0.24$). Given that the interaction is not statistically significant, however, Keppel (1991) suggested that further examinations of mean comparisons are necessary to evaluate specific predictions. Following Keppel's (1991) recommendation, post hoc comparisons were performed to accurately identify predicted effects.

The results showed that under the similar extension condition, participants exposed to the positive comparative frame reported stronger intentions to purchase the extension product than those exposed to the negative comparative frame (M positive comparison = 5.07 versus M negative comparison = 4.67, F (1, 304) = 4.24, $p < 0.05$), supporting H1b. However, under the dissimilar extension condition, no significant difference between participants in the positive and negative comparative frame emerged for purchase intentions (M positive comparison = 3.42 versus M negative comparison = 3.36, F (1, 304) = 0.09, $p = 0.76$). Hence, H2b was not supported (see Figure 2).

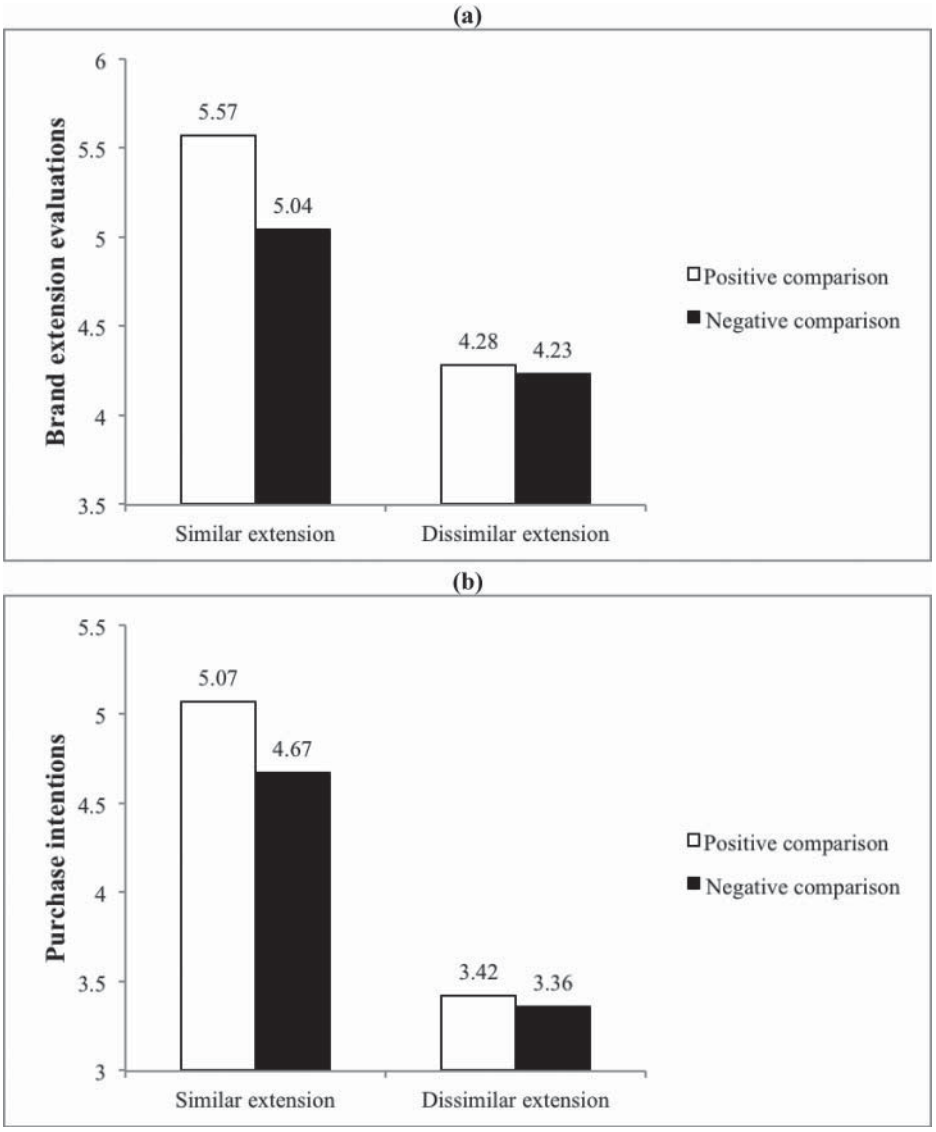

Figure 2. (a) Brand extension evaluation, (b) Purchase intentions. Interactive effects of comparative valence frame and perceived fit.

Mediated moderation analysis

To assess the prediction that perceived extension risk mediates the interactive effect of comparative valence frame and parent-extension fit on brand extension evaluations, we conducted separate regression analyses for mediated moderation (Baron and Kenny 1986), which refer to 'instances in which a mediator variable explains the relation between an interaction term in a moderator model and an outcome' (Frazier, Tix, and Barron 2004, 117). In other words, mediated moderation occurs when the interaction effect of the independent and moderator variables on outcome variable is transmitted through the mediator variable (Bucy and Tao 2007).

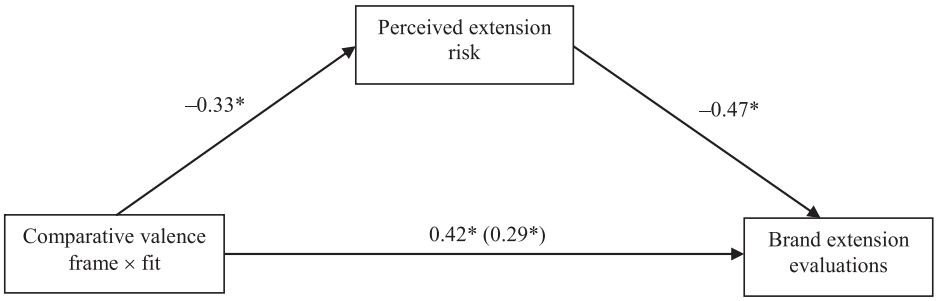

Figure 3. Mediated moderation model. Note: Values in parentheses indicate the effects from the simultaneous regression that included both perceived extension risk and the interaction between comparative valence frame and parent-extension fit as predictors; * indicates that the effect is significant at $p < 0.01$.

First, the interaction between comparative valence frame and parent-extension fit significantly predicted brand extension evaluations ($\beta = 0.42$, $t = 8.06$, $p < 0.01$) and perceived extension risk ($\beta = -0.33$, $t = -6.19$, $p < 0.01$). Next, perceived extension risk significantly predicted brand extension evaluations ($\beta = -0.47$, $t = -9.47$, $p < 0.01$). Finally, when both perceived extension risk and the interaction between comparative valence frame and parent-extension fit were included as predictors of brand extension evaluations, perceived extension risk remained a significant predictor ($\beta = -0.38$, $t = -7.48$, $p < 0.01$), but the interaction between comparative valence frame and parent-extension fit was reduced in significance ($\beta = 0.29$, $t = 5.77$, $p < 0.01$).

Furthermore, we tested the significance of indirect effects using the Preacher and Hayes's (2008) bootstrapping macro. In this model, we used 5000 bootstrapped resamples in order to estimate the bias-corrected 95% confidence intervals (CI; Baek and Reid 2013; Zhao, Lynch, and Chen 2010). Since the confidence interval did not contain zero, the indirect effect of the comparative valence frame by parent-extension fit interaction on brand extension evaluations through perceived extension risk was statistically significant (95% CI = 0.07 to 0.18). In addition, the direct path from the comparative valence frame by parent-extension fit interaction to brand extension evaluations was statistically significant (95% CI = 0.20 to 0.38). As shown in Figure 3, our findings suggest that the interactive effect of comparative valence frame and parent-extension fit on brand extension evaluations is partially mediated by perceived extension risk. Accordingly, H3 was supported.

Discussion

The overarching objective of this study is to examine how comparative valence frame influences consumer acceptance of brand extensions when parent-extension fit matters. Since competition may be relevant both in the parent brand's flagship product categories and also in the target extension category (Loken, Joiner, and Houston 2010), extant research has dynamically shifted from an emphasis on the congruity of an extension with the parent to an emphasis on the role of competition that impacts brand extension evaluations (Han 1998; Kapoor and Heslop 2009; Milberg, Sinn, and Goodstein 2010). Given the importance of competition in determining brand extension acceptance, the current research is one of the first to demonstrate how comparative valence frame and parent-extension fit interplay in influencing brand extension acceptance in a competitive marketplace.

Previous studies have reported mixed results with respect to the influence of framing on persuasion, suggesting that message framing effects depend on certain moderators (Baek, Shen, and Reid 2013; Maheswaran and Meyers-Levy 1990; Shiv, Britton, and Payne 2004; Shiv, Edell, and Payne 1997). We add to a growing body of framing literature by demonstrating that the persuasive effects of comparative ad messages framed either positively or negatively on brand extension evaluations and purchase intentions vary according to the perceived fit between the parent brand and the extension as a possible moderator. The results of this study show that a positive comparison-framed ad message elicited more favourable extension evaluations (H1 a) and greater purchase intentions (H1b) than a negative comparison-framed ad message when the extension product is congruent with the parent brand. Our findings might be explained by the dual-process models of information processing (Chaiken 1980; Petty and Cacioppo 1981) and impression formation (Fiske 1982; Fiske and Pavelchak 1986). Consistent with previous research demonstrating that positive information is more effective than negative information when people rely predominately on relatively effortless heuristic processing (Maheswaran and Meyers-Levy 1990), it is plausible that a similar extension may contribute to the dominance of category schema-based processing and increase individuals' reliance on heuristics associated with the parent brand knowledge.

Contrary to H2a and H2b, when the extension product is not congruent with the parent brand, both positive and negative comparison-framed ad messages contributed equally to brand extension evaluations and purchase intentions. The absence of treatment effects of comparative valence frame under a dissimilar extension condition might be due to the fact that participants under the dissimilar extension are more likely to spontaneously engage in a combination of heuristic and systematic processing, and they are relatively insensitive to the way in which the comparative ad message is framed. Meyers-Levy and Maheswaran (2004) found that when both heuristic and systematic processing are expected to co-occur, message framing effects would not appear. Another possible explanation might be attributed to the technological hierarchy effect (Jun, Mazumdar, and Raj 1999). When the parent brand's core product and its extension product are at different technological levels, consumers tend to use their general knowledge about the technology competence of the parent brand as an anchor or reference point for evaluating brand extensions. For an upward extension to a higher level of technology (e.g., Nike's extension from athletic shoes to a digital camera under the dissimilar extension condition), participants might anchor their evaluative judgment based on the existing technological competence of the parent brand, and might be skeptical about the firm's manufacturing capacity to incorporate a higher level of technology in the extension (Kapferer 1994). As suggested by Jones, Sinclair, and Courneya (2003), no persuasive effects of positive versus negative framing are observed when source credibility is low. Therefore, it is possible that, due to the technological hierarchy effect, consumer skepticism about the dissimilar extension product's quality would increase from the imperfect transferability of the parent brand's technology competence to the extension, thereby attenuating the effect of comparative valence frame on extension evaluations and purchase intentions.

The findings of this research have several theoretical and practical implications. From a theoretical standpoint, the current research takes the important conceptual step of untangling the underlying mechanisms through which the interaction between comparative valence frame and parent-extension fit influences consumer evaluations of brand extensions. Importantly, we confirm that perceived extension risk can function as a critical mediating factor that provides implications for understanding the underlying mechanism through which comparative valence frame interacts with parent-extension fit.

As suggested by Campbell and Goodstein (2001), perceived risk is an important driver that directly influences consumers' preferences, choices, and behaviours. This approach is also similar to those of Milberg, Sinn, and Goodstein (2010), who separately observed that perceived risk mediates the effects of perceived fit on extension preferences in noncompetitive settings. However, our findings suggest that perceived extension risk plays a mediating role in explicit competitive settings. The mediating role of perceived extension risk proposed here is intended to contribute to a more systematic theory on how the perceived fit between the parent brand and its extension product operates in competitive contexts. The perceived risk factor, when integrated into a unifying framework, can account for how comparative valence frame interacts with the parent-extension fit. Such an integrated framework of parent-extension fit and perceived extension risk will help enhance the understanding of how consumers evaluate brand extensions, especially when various competitive extension advertising strategies are under consideration.

Practically speaking, the results of this study can provide strategic guidance to advertisers and brand managers. Given that competition is intense and constant in the consumer marketplace, some scholars have continued to investigate how competing brands in the target category might affect the evaluation of brand extensions (Han 1998; Kapoor and Heslop 2009; Milberg, Sinn, and Goodstein 2010; Oakley et al. 2008). They have argued that competitive advertising strategies for brand extensions are advisable by providing competitive information along with comparative versus noncomparative brand positioning statements in the extension category. Particularly when different brand extensions and competing brands are paired in a comparative advertising setting, the current research sheds light on strategies most likely to be persuasive in inducing greater acceptance of brand extensions in a competitive marketplace. Understanding the interactive effect of comparative valence frame and parent-extension fit may help advertising and marketing practitioners develop effective advertising copy for brand extensions.

From an international standpoint, advertisers who plan to develop their brand extension advertising strategies along with comparative valence frame should exercise caution before translating our results to global marketplaces. In general, Eastern consumers who are often characterized as more holistic thinkers (i.e., engaging in effortless, global, and fast processing) tend to judge brand extension fit to be higher, and evaluate brand extensions more favourably than Western consumers who have a relatively more analytical thinking process (i.e., engaging in effortful, detail-oriented, and deliberative processing) (Monga and John 2007). There is further evidence for the influence of an analytic versus holistic processing style on message framing effects (McElroy and Seta 2003). Accordingly, international advertisers should fine-tune their brand extension advertising strategies by carefully examining whether the interaction effect of comparative valence messaging and parent-extension fit might be enhanced or suppressed depending on their target audiences' thinking styles (i.e., an analytic–holistic perspective).

In addition, given the importance of perceived extension risk in explaining the underlying mechanism causing the significant interaction effect observed in this study, it is likely that the most critical cultural dimension relevant to the current research is uncertainty avoidance, which refers to 'the extent to which people feel threatened by ambiguous situations and create beliefs and institutions that try to avoid these' (Hofstede and Bond 1984, 419). Consumers in a high uncertainty-avoidance culture are relatively more likely to accept similar brand extensions as a way to reduce the risk of purchasing the extension products, and have more aversion to risky choices in the domain of gains (e.g., focusing on a positive comparison-framed message) than those in a low uncertainty-avoidance culture. Therefore, international advertisers should be sensitive to

cross-cultural differences in uncertainty avoidance if executing their brand extension advertising campaigns globally.

Limitations and directions for future research

As with all studies, the findings of this study have several limitations. First, the samples were drawn from a population of college students, which limits the generalizability of the findings. Although college-age consumers are frequently targeted using competitive ad strategies for brand extensions, and are purchasers of the product categories tested, they are not the only intended audience for ads for different extension product categories used across the experimental design. Thus, further research is needed to replicate the effects of competitive advertising strategies for brand extensions using nonstudent samples with a broader demographic or psychological spectrum, to enhance external validity.

Second, the results of this study were based on a limited number of product categories affiliated with the parent brand. In particular, the present research tested only two extension products. As product involvement differences are known to affect consumers' perceptions of parent-extension fit and risk (Maoz and Tybout 2002), an important next step would be to examine the extent to which the findings may be generalized to high or low involvement product/service categories extended from a variety of parent brands. In sum, further research should be aimed at investigating the robustness and generalizability of these results across multiple product and service categories that reflect different levels of involvement.

Third, competing brand selection was limited due to several considerations in the experimental design (e.g., market share, brand awareness, and brand preference across extension categories). It is possible that some competing brands originating from extension product categories are more or less familiar to respondents. Although potential confounds were controlled statistically in this study, future research should attempt to manipulate the degree of competing brand familiarity. Furthermore, a potentially fruitful direction for future research may be the inclusion of a noncomparative condition (i.e., no other competing brand is mentioned). A comparison with the control condition enables us to further examine whether the relative effects of comparative valence frames truly vary as a function of perceived fit between the parent brand and the extension product.

The findings of this study provide valuable insights into understanding the persuasive impact of a comparative ad frame on extension evaluations and purchase intentions when parent-extension fit matters, and suggest a path for future studies to build on these findings.

Disclosure statement

No potential conflict of interest was reported by the authors.

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