

Purchase Intention toward the Extension and Parent Brand: The Role of Brand Commitment

Chung-Yu Wang*

Department of Business Administration, National Kaohsiung University of Applied Sciences, Taiwan

Li-Wei Wu

Department of International Business, Tunghai University, Taiwan

Chen-Yu Lin

Department of International Trade, Feng-Chia University, Taiwan

Ruei-Jie Chen

Department of Business Administration, National Kaohsiung University of Applied Sciences, Taiwan

This study sets up a model estimation that includes structural equation analysis and uses data from 240 surveys developed under market conditions. The results verify that extension attitude affects purchase intention toward extension and parent brands, whereas perceived fit between a new product and either the remaining products (category fit) or brand image (image fit) can strengthen consumer attitude. The study also explains how the role of consumer brand commitment as a moderating factor can suggest a strong relationship between image fit and extension attitude for consumers with a high level of brand commitment, which is more important than expected. In contrast, consumers with a high level of commitment fail to consider category fit when evaluating brand extensions. Theoretical and managerial implications of our findings are discussed herein.

Keywords: brand extensions, brand commitment, image fit, category fit

JEL classification: M3, L1

*Correspondence to: Chung-Yu Wang, Department of Business Administration, National Kaohsiung University of Applied Sciences, Chien Kung Campus 415 Chien Kung Road, Kaohsiung 807, Taiwan, R.O.C. Tel.: +886 7 3814526-7319; E-mail: wcuwcu@kuas.edu.tw.

1 Introduction

Brand extensions appear to be the cornerstone of growth strategies, considering that they have become the most common form of new product introduction (e.g., Milberg *et al.*, 2010). By looking at the low costs and high success rates, over 80% of firms choose brand extensions as a strategy to market goods and services (Keller, 2003), but success rates are noticeably below 50% (Taylor and Bearden, 2003). Product introductions with the same brand name can leverage the brand image, brand awareness, and brand equity obtained in established markets (Milberg *et al.*, 1997; Vetrivel *et al.*, 2015). Marketers believe that consumers favorably evaluate brand extensions, because consumers transfer positive attitudes toward the parent brand through its extension (Bhat and Reddy, 2001).

Several authors have focused on the “forward effect” or transference of associations from the parent brand to the extension (Aaker and Keller, 1990; Czellar, 2003). Some researchers have focused on the “feedback” or “backward effect” from the new category to the extended brand, indicating that it equally deserves further investigation, because it could dilute established brand associations (Salinas and Perez, 2009). However, few studies have simultaneously targeted both the forward and feedback effects (Desai and Hoyer, 1993). Accordingly, analyzing the **reciprocal transfer** of associations between product brand and brand extension should have great significance (Boisvert, 2016; Ramanathan and Velayudhan, 2015). These studies utilize a limited number of variables to narrow the scope of analysis and are difficult to generalize. Therefore, this work analyzes the extension consistency issue (or fit), thereby causing all cognitive models of brand-extension feedback to be considered more relevant (Loken and John, 1993; Park *et al.*, 1993). The literature has revealed that attitude toward an extended brand depends directly on the degree of fit with the extension (Grime *et al.*, 2002).

This work extends previous research in several ways. First, the study simultaneously examines the extension-brand forward and feedback effects on intention to purchase the brand extensions and **parent brand (post)** via extension attitude. Second, previous research focused mainly on either category fit or image congruency (e.g., Bhat and Reddy, 2001; Salinas and Perez, 2009). This work verifies whether perceived fit in the extension evaluation process also differs

depending on the level of brand commitment. The attitude to an extension is better when the consumer trusts (Reast, 2005), regularly buys products, or commits to a repurchase from the brand (Völckner and Sattler, 2006).

Martínez *et al.* (2009) failed to explain the expected interrelation between brand loyalty and extension evaluation. Fedorikhin *et al.* (2008) demonstrated that the effect of elevated attachment on reactions to brand extensions will be pronounced at a high level of fit versus a low level of fit. They indicated that a person highly attached to a particular object tends to be committed to and willing to protect and preserve interactions with it. Therefore, we expect brand commitment may moderate the relationships between perceived fit, extension attitude, and intention to purchase extension brand. We also hope this will help marketers knowingly expand the boundary of the extension of their brands.

This work proposes and empirically analyzes a conceptual framework that considers parent brand commitment, category fit, image fit, and extension attitude as antecedents for purchase intention to the extension and parent brands. We particularly examine the moderating roles of brand commitment in the relationship between extension attitude and its antecedents as well as extension attitude and purchase intention. Understanding how the various factors related to extension attitude and boundary conditions of their relationship can help managers effectively increase extension attitude through initiatives involving those factors that affect extension attitude. This finding can be illustrated when image fit strongly affects extension attitude for customers with a high level of brand commitment. Moreover, image fit is especially important for customers with a high level of brand commitment. Managers should focus on increasing customer-perceived image fit.

2 Literature Review and Hypotheses

Purchase intention is widely used as a significant predictor of consumers' subsequent purchase behavior (Fishbein and Ajzen, 1975). Attitudes are overall evaluations of the brand by the consumers (Keller, 1993). The success of a marketing program depends on creating favorable brand associations (Keller, 1993), and these positive attitudes have a positive effect on the intention toward the extension brand. Previous studies have found that extension attitude influences

intention to purchase extension brand (e.g., Bhat and Reddy, 2001; Lei *et al.*, 2008; Riley *et al.*, 2015).

Extensions are a suitable strategy for firms when they contribute to the improvement of the parent brand by reinforcing brand equity associations (Aaker, 2002). In contrast, unsuccessful extensions may jeopardize brand equity by weakening the positive associations with the original brand (John *et al.*, 1988). Hence, past research has demonstrated that extension attitude affects parent brand image (e.g., Arslan and Altuna, 2010; Salinas and Perez, 2009) and the attitude toward parent brand (e.g., Dens and Pelsmacker, 2010). Negative feedback (backfire) effects occur when extensions are perceived as being inconsistent with the parent brand (e.g., Keller and Sood, 2003; Martinez and Pina, 2003). This paper hence proposes the following hypotheses.

Hypothesis 1: Extension attitude positively affects the intention to purchase the brand extension.

Hypothesis 2: Extension attitude positively affects the intention to purchase the parent brand.

Extension attitude is crucial in the brand-extension evaluation process and bridges the gap between perceived fit and new product assessment. Several works have found that extension attitude may mediate between perceived fit and purchase intention (e.g., Bhat and Reddy, 2001; Lei *et al.*, 2008) or attitude toward parent brand (e.g., Dens and Pelsmacker, 2010). Perceived fit has frequently been viewed similarly between the product categories of the extension and existing products in a brand line (e.g., Boush and Loken, 1991). However, Park *et al.* (1991) argued that product category similarity represents only one facet of fit as follows: perceptions of fit between a parent brand and an extension are also based on the congruence of the extension with the image of the brand.

To analyze the role of that factor properly, some authors have distinguished between category fit and brand image fit (Bhat and Reddy, 2001; Grime *et al.*, 2002; Czellar, 2003). The former reflects the similarity between the new category and other products of the extended brand, whereas the latter defines the degree to which the extension shares in the concepts, feelings, and associations of the global brands, such as prestige or functionality (Grime *et al.*, 2002; Czellar, 2003). When perceived category fit is high, consumers believe that marketer expertise makes the parent

brand product useful in manufacturing the extension. This credibility results in the transfer of positive evaluations from parent brand to the extension (Aaker and Keller, 1990). When extension image is similar to that of the parent brand, consumers tend to view the extension as a typical member of the parent brand category, which leads to the enhanced transfer of positive attitudes to the extension (Som and Pape, 2015). Keller and Sood (2003) stated that parent brand dilution usually occurs when the experience with the new category is wider and when the experience is more incongruent with the brand image. The favorable fit effect appears in studies that have considered fit from the category and the image perspectives (Salinas and Perez, 2009; Martinez and Pina, 2010). Hence, our next set of hypotheses is as follows.

Hypothesis 3: Perceived image fit positively affects extension attitude.

Hypothesis 4: Perceived category fit positively affects extension attitude.

Commitment is viewed as a sense of psychological attachment to an attitude object (Kiesler, 1971). Commitment is considered to be an enhanced desire to hold a particular attitude and pledges or binds the individual to a certain type of behavior (Agrawal and Maheswaran, 2005). Commitment is driven by consumer experience with a brand and different forces around an individual (e.g., social network, culture) (Raju *et al.*, 2009). Commitment is based on emotions and affective attachments to the object (Porter *et al.*, 1974). Thus, commitment is grounded on customer partiality and positive feelings for the relationship partner.

Raju *et al.* (2009) indicated that committed individuals feel tied to a brand and are less willing to change brands when compared with less committed individuals. Agrawal and Maheswaran (2005) noted that low-commitment consumers hold weak attitudes and fail to possess reliable beliefs regarding the target brand. As for the extended brand, relationship commitment has a positive effect on brand extension via parent brand equity (Zohdi *et al.*, 2015). The attitude toward an extension is better when the consumer regularly buys the brand or shows a commitment to repurchase (Völckner and Sattler, 2006). As brand commitment increases, extension credibility and brand-extended product congruency also increase (de Ruyter and Wetzels, 2000; Czellar, 2003).

A previous work showed that emotional attachment can be transferred from one object (e.g., parents) to another (e.g., romantic partner, peers) (e.g., Feeney, 2004). Fedorikhin *et al.* (2008) presented that a person highly attached to a particular object

tends to be committed to preserve interactions with it. They and Fedorikhin *et al.* (2006) demonstrated that the effects of elevated attachment on reactions to brand extensions (i.e., purchase intentions and willing to pay) are pronounced at high levels of fit compared with low levels of fit. Thus, we expect that the transfer of the effect depends on the extension attitude and the extent to which the extension is similar to the parent brand. At high levels of perceived image fit, category fit, and extension attitude, brand extensions are easily categorized as members of the parent brand category, thereby resulting in the transfer of effect in the stronger commitment condition. Therefore, this work advances the following hypotheses.

Hypothesis 5a: *The effect of perceived image fit on extension attitude is greater when consumer brand commitments are higher than when consumer brand commitments are low.*

Hypothesis 5b: *The effect of perceived category fit on extension attitude is greater when consumer brand commitments are higher than when consumer brand commitments are low.*

Hypothesis 5c: *The effect of extension attitude on intention to purchase an extension brand is greater when consumer brand commitments are higher than when consumer brand commitments are low.*

Based on the preceding considerations, this work develops a conceptual model (Figure 1).

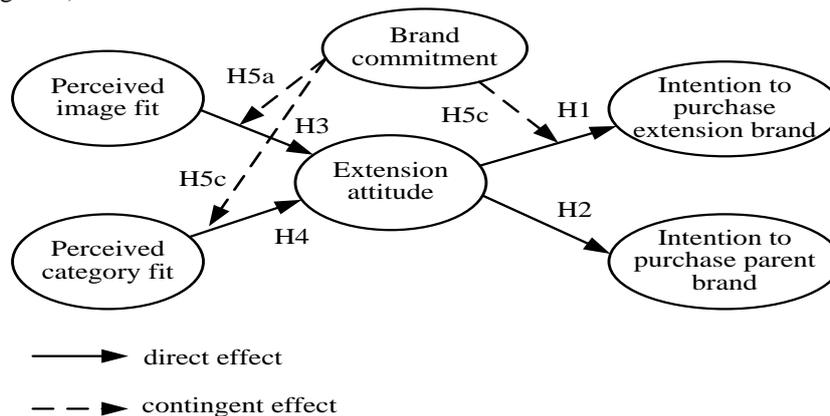


Figure 1. Research Model

3 Method

Adopting a typical procedure, this study analyzes real brands and realistic hypothetical extensions coming from three pre-tests (Aaker and Keller, 1990; van Riel and Ouwersloot, 2005).

3.1 Pre-tests

A sample of undergraduates participated in the pre-tests (Sheinin and Schmitt, 1994). The first pre-test was conducted with 30 undergraduates, with the aim of choosing two actual brands (Kleenex vs. Nike) from different sectors (fast moving consumer goods and durable consumer goods). The second and third pre-tests were conducted with 60 and 40 (respectively) participating undergraduates, with the aim of finding two extensions: one for each sector, with differences in perceived fit. The pre-tests included measures of both perceived category fit (CF) and brand image fit (IF) (Bhat and Reddy, 2001) in two seven-point Likert scales. Regarding toilet paper brands, the first extension (sanitary napkin) shows a higher perceived fit than the second one (USB flash drive) for Kleenex (CF1 = 5.50; CF2 = 1.75; $t = 12.97$; $p < 0.05$) (IF1 = 5.92; IF2 = 1.75; $t = 17.45$; $p < 0.05$). Conversely, regarding sports brands, “tennis racket” is the close extension and “toothpaste” the far extension in relation to the perceived fit of Nike (CF1 = 5.17; CF2 = 2.33; $t = 10.85$; $p < 0.05$) (IF1 = 5.02; IF2 = 2.27; $t = 9.82$; $p < 0.05$).

3.2 Sample and Procedure

Aside from the pre-tests, the study included four questionnaires with a different brand-extension combination (Kleenex vs. Nike and low vs. high fit). Each questionnaire started with questions regarding some issues related to the particular brand, such as commitment. Shortly afterwards, respondents learned that the brand had decided to launch a potential extension, and they had to assess the new product in different ways (perceived fit, extension attitude, and perceived risk). The survey finished with the same questions regarding purchase intention. The order of

questions attempting to minimize the order effect is significant (Klink and Smith, 2001).

Students were trained as recruiters prior to data collection. The training enabled students to recruit respondents, who were asked to complete a self-reported questionnaire. From the outset, in several stores selected at Kaohsiung City, Taiwan, respondents were informed that they were participating in a research and were then provided with questionnaires. The respondents received questionnaire items translated into Chinese. Before answering the questionnaire items, respondents were asked to read the survey instructions. The interviewers were instructed to provide any clarification and assistance. Every third person leaving the store and passed the interviewers was asked to participate, which is a method similar to Orth and Holancova (2004).

The analysis described here was based on data from 240 subjects for whom a complete model-related information was available. The sample was mainly composed of women (58%). Interviewees were concentrated largely in the following younger age range: 43% of the respondents were aged between 21 and 30, 25% between 31 and 40, and 15% between 41 and 50, whereas only 14% were young (< 20 years old) and 3% were old (>50 years old). In terms of education, 13% of the respondents had a senior high school education, and 76% possessed a college degree, whereas 11% possessed a master's degree. Interviewees were largely concentrated in the following lower monthly income range: 39% of the respondents earned between NT\$20,000 and NT\$39,999, 38% earned less than NT\$20,000, and 16% earned between NT\$40,000 and NT\$59,999, whereas only 7% earned over NT\$60,000. The samples' income characteristic is similar to the survey of consumer behavior (Executive Yuan, Taiwan, 2012).

3.3 Measures

Several seven-point Likert questions measured the variables with items extracted or based on the literature. First, a three-item scale regarding parent brand commitment scale was adopted from Beatty *et al.* (1988). The scale of perceived fit considers the distinction between category fit or similarity and image fit or consistency with brand image (Park *et al.*, 1991; Bhat and Reddy, 2001; Grime *et al.*, 2002). Two items

were adopted as measures for category fit, and three items were adopted as measures for image fit (Aaker and Keller, 1990; Salinas and Perez, 2009; Taylor and Bearden, 2002). A three-item scale pertaining to extension attitude items comes from works such as Aaker and Keller (1990), Pryor and Brodie (1998), and Salinas and Perez (2009). Finally, the scale of intention to purchase brand extension and parent brand includes two items proposed by Yoo and Donthu (2001).

3.4 Reliability and Validity

To reduce the data into a smaller and more meaningful set of components, several purification steps (confirmatory factor analyses and item-to-total) were run. Amos software was used, and confirmatory factor analysis was performed to assess the measurement model consisting of all items designed to measure the constructs as well as for six of the constructs' s ($\chi^2=160.65$, $df = 75$, $p < 0.01$; $RMSEA = 0.07$, $GFI = 0.92$, $AGFI = 0.87$). As for reliability, the composite reliability values are higher than 0.7 for all constructs (Nunnally, 1967). The average variances extracted (AVE) for all constructs are greater than 0.5, demonstrating convergent validity (Fornell and Larcker, 1981). The square roots of the AVE for all constructs range from 0.74 to 0.90, which exceeds the correlation between that construct and any other ranging from 0.13 to 0.72, thereby demonstrating adequate discriminant validity for six constructs (Fornell and Larcker, 1981). In summary, the overall measure properties are acceptable.

4 Statistical Analysis

4.1 Results

This work applies a structural equation modeling (SEM) to estimate our theoretical model using AMOS. The next stage of analysis involves estimating the structural or proposed model. Table 2 shows the main results, which are favorable to the model. Overall, goodness-of-fit indices show suitable values ($\chi^2=137.07$, $df = 49$, $p < 0.01$; $GFI = 0.92$; $AGFI = 0.87$; $RMSEA = 0.09$; $NFI = 0.93$; $IFI = 0.96$). Results suggest that image fit ($\beta = 0.31$; $p < 0.05$) and category fit ($\beta = 0.55$; $p < 0.05$) have

significant positive effects on extension attitude. A factor sequentially affects the intention to purchase an extension brand ($\beta = 0.68$; $p < 0.05$) and the intention to purchase a parent brand ($\beta = 0.19$; $p < 0.05$). Consequently, the hypotheses (H1-H4) were supported.

Table 1. Overview of the Multi-item Measures

Constructs and items (composite reliability, AVE)	Loading
Category fit (0.71, 0.55)	
The extension is similar to the brand's products	0.82
The firm's resources are helpful to make the product extension	0.66
Image fit (0.93, 0.81)	
The product extension fits with the brand image	0.83
Launching the extension is logical for the company	0.95
Launching the extension is appropriate for the company	0.91
Extension attitude (0.88, 0.71)	
Favorability of the extension	0.82
Perceived quality of the extension	0.84
Likelihood of trying the extension	0.86
Brand commitment (0.79, 0.56)	
I consider myself highly loyal to the parent brand	0.87
When another brand is on sale, I will generally purchase it rather than the parent brand	0.75
If the parent brand is not available at the store, then it makes little difference to me if I had to choose another brand	0.60
Intention to purchase the extension brand (0.87, 0.77)	
I would like to buy the extension brand	0.88
I intend to buy the extension brand	0.87
Intention to purchase the parent brand (0.87, 0.77)	
I would like to buy the parent brand	0.95
I intend to buy the parent brand	0.80

Table 2. Results of the Structural Model

	Standardized estimate	Hypotheses' validation
H1: Extension attitude -> Intention to purchase extension brand	0.68**	Yes
H2: Extension attitude -> Intention to purchase parent brand	0.19**	Yes
H3: Image fit -> Extension attitude	0.31**	Yes
H4: Category fit -> Extension attitude	0.55**	Yes

** $p < 0.05$

A two-group model was employed to test any moderating effects with group membership assigned, based on the median of brand commitment [i.e., less than 4.33 ($n = 97$) and more than 4.33 ($n = 143$)]. Considering that the number of items in the scales and the sample size of the low level of commitment group are greater than those of Liu *et al.* (2005) and Wang and Wu (2012), the sample size may be sufficient to run a two-group model.

Measurement invariance was tested for the measurement model with a combination of high and low levels of commitment. The first step to establish measurement invariance is to test configural invariance. Configural invariance is tested by running Multi Group confirmatory factor analysis, because it serves as the comparison standard for subsequent tests (also known as the baseline model). This model is tested by constraining the factorial structure to be the same across groups. To test configural invariance, this five-factor model is constrained to be the same for two groups. Following Cheung and Rensvold's (2002) recommendation, $RMSEA \leq 0.05$ was used to evaluate configural model fit, and CFI also complimented RMSEA. The fit statistics ($RMSEA = 0.054$, $CFI = 0.97$) show that configural invariance was supported.

Metric invariance is tested to ensure that different groups similarly respond to the items for a meaningful comparison of ratings obtained from different groups (Hair *et al.*, 2006; Steenkamp and Baumgartner, 1998). Metric invariance concretely allows researchers to compare the strength of relationships among constructs from one group to another. At this stage, the model with metric invariance is more restrictive than the baseline model.

The test of metric invariance is conducted by constraining the factor pattern coefficients (loadings) to be equal across groups, because the pattern coefficients carry information regarding the relationship between latent and observed scores. When metric invariance is established, the different scores on the item can be meaningfully compared across groups - that is, observed item differences indicate group differences in the underlying latent construct (Steenkamp and Baumgartner, 1998). Tests for measurement invariance assess whether each element of the respective matrices, which is equal in all groups, is the full measurement invariance. However, such a requirement is widely acknowledged to probably be too strict and unrealistic a goal for group comparisons. Consequently, Byrne *et al.* (1989) introduced the concept of partial invariance in which only a subset of parameters in each matrix must be invariant, whereas others are allowed to vary between groups. The results show that in the five constructs with 12 items, only one item loading (CR = 2.89, Critical Ratio (CR) > 1.96 indicates significance at the 0.05 level) is significantly higher in the respondent group, indicating higher extension attitude compared with the other group and thereby supporting partial invariance.

For structural comparisons across groups to be meaningful, the model was specified to be invariant across groups. Statistical tests of the hypothesized, non-zero parameters were conducted to examine the associated parameter scores (Table 3). In the high level of brand commitment, all but two parameters are significant. Image fit positively affects extension attitude ($\gamma=0.67$, $p < 0.05$), and extension attitude positively affects intention to purchase extension brand ($\gamma=0.51$, $p < 0.05$). In the lower levels of brand commitment, category fit is positively related to extension attitude ($\gamma=0.77$, $p < 0.05$), and extension attitude positively affects intention to purchase extension brand ($\gamma=0.76$, $p < 0.05$).

Although the findings suggest that antecedents of purchase intentions differ across high and low levels of brand commitment groups, further analysis was conducted to test group differences by systematically constraining structural parameters to be equal across groups (Table 3). The findings indicate that the relationship between image fit and extension attitude is stronger for consumers with a high level of brand commitment ($\Delta\chi^2 = 4.04$, $\Delta df = 1$, $p < 0.05$, H5a). By contrast, the relationship between category fit and extension attitude is stronger for consumers with a low level of brand commitment ($\Delta\chi^2 = 3.67$, $\Delta df = 1$, $p < 0.10$,

H5b). Consequently, the moderating effect appears for the two types of fit, although the effect of category fit is contrary to the hypothesized direction. Finally, rejecting H5c, extension attitude does not have a stronger effect on intention to purchase extension brand for consumers with a high level of brand commitment ($\Delta\chi^2 = 0.06$, $\Delta df = 1$, $p > 0.05$).

Table 3. Path Coefficients of a Two-group Model (Standardized Estimate)

	Group I (High level of commitment)	Group II (Low level of commitment)	$\Delta\chi^2$
H5a: Image fit -> Extension attitude	0.67**	0.05	4.04**
H5b: Category fit -> Extension attitude	0.27	0.77**	3.67*
H5c: Extension attitude -> Intention to purchase extension brand	0.51**	0.76**	0.06

** $p < 0.05$; * $p < 0.10$

4.2 Additional Analysis

Mediation analyses were performed using the SPSS PROCESS macro developed by Hayes (2013) to test the mediating effects. The indirect effects and 95% bias-corrected confidence intervals were estimated using 5000 bootstrap samples, as recommended by Hayes (2009). The criterion for mediation was identifying a significant indirect effect, as indicated by the 95% confidence interval excluding the zero value. The results show that extension attitude partially mediates the relationship between category fit as well as image fit and intention to purchase extension brand ($ab = 0.29$ vs. 0.31), whereas extension attitude mediates the relationship between category fit as well as image fit and intention to purchase parent brand ($ab = 0.18$ vs. 0.15). Therefore, the mediating effects of extension attitude do exist.

5 Discussion and Managerial Implications

Firms frequently follow brand-extension strategies by attempting to leverage current brand associations. The brand is a crucial asset (Aaker, 1996), and thus marketing managers must know which extensions are more suitable and less risky. Significantly, the study finds that seemingly successful extensions in terms of consumer acceptance may damage the purchase intention toward the brand. If the extension has a low fit, then a negative effect will occur on the purchase intention toward the parent brand through the attitude toward the extension. A high-fit extension fails to guarantee the increase in the purchase intention toward the extension brand in cases where extension attitude is unsatisfactory. The new associations coming from seemingly successful extensions will dilute established brand equity (Sheinin, 2000).

This work finds that perceived image fit and perceived category fit are strong determinants of extension attitude. These results appear to be in line with previous literature indicating that extension attitude depends mainly on perceived fit (e.g., Salinas and Pérez, 2009; Völckner and Sattler, 2006). Conversely, consumer purchase intention toward the extension brand and parent brand is the result of the attitude to the new product. The results appear to be in line with those works indicating that the intention to purchase an extension brand depends on extension attitude (e.g., Bhat and Reddy, 2001; Lei *et al.*, 2008), thereby implying that the product brand image after the extension depends on extension attitude (e.g., Arslan and Altuna, 2010; Dens and Pelsmacker, 2010; Salinas and Pérez, 2009).

Apart from perceived fit and initial associations, these findings also highlight the importance of consumer brand commitment to determine extension attitude. The findings show that individuals with a high level of commitment place extra emphasis on image fit when evaluating the extension. Therefore, consumers with higher levels of commitment will not object to buying an extension largely differing from the current products of the brand, although they will demand higher coherence with the brand image.

Contrary to our prediction, the results indicate that the relationship between category fit and extension attitude is stronger for consumers with a low level of

brand commitment. This finding may be explained by Kim *et al.* (2014), who demonstrated that strong brand relationship quality, including commitment, enhances consumer judgments regarding brand extensions. They also showed that this effect occurs for two moderately-low-fit extensions: the extension and the parent are in similar product categories with inconsistent attributes or dissimilar product categories with consistent attributes.

The results of the study hold important implications for firms launching brand extensions. Despite the extensive research warning of the risks of over-extending a brand, most firms continue to leverage their brand whenever they market a new product (Völckner and Sattler, 2006). One of the reasons behind this behavior is the wrong belief that brand extensions may not be harmful for pre-existing associations. Hence, a major recommendation for firms is to launch the extension if perceived fit is high.

The results indicate that perceived image fit and category fit influence extension attitude. Therefore, the new product or service does not necessarily have to belong to the same category, but the firm must be able to transmit the brand essence from one market to another (Kim, 2003). The results of the present study also highlight the effect that brand commitment has on extension attitude. Specifically, consumers with a higher level of commitment may especially assess image fit for extension brands. In any case, companies targeting consumers with lower levels of commitment should not overlook category fit, because they focus on category fit for assessing extension brands and category fit to reduce the level of risk (Smith and Andrews, 1995).

The results herein demonstrate the need to incorporate constructs beyond perceived image fit and perceived category fit into models of extension attitude by integrating contingency relationships (Salinas and Perez, 2009; Martinez and Pina, 2010). Failure to include contingency relationships tends to result in underestimating the role played by brand commitment in the customer assessment process of extension brands. Failure to have extension attitude also tends to result in undervaluing the mediating role played by extension attitude in the relationship between perceived fit and purchase intentions.

6 Limitations and Suggestions for Future Research

The present study has certain limitations. These limitations are discussed below, together with recommendations for future research directions. First, consistent with Volcker and Sattler (2007), the present study conducted the experiments in the context of only two types of sectors (fast-moving consumer goods and durable consumer goods). Generalizability would be significantly enhanced by replicating our model across a range of sectors (i.e. service). Future research could assess whether differences/similarities exist across various sectors. In fact, studying incidences among brands competing in tangible product markets and extending into services would be interesting.

Second, with regard to antecedents of extension attitude, the present study focused on perceived fit, whereas future works could supplement this study by including antecedents of perceived fit (i.e. service quality). This assumption is based on the conclusions of Volcker *et al.* (2010) and Salinas and Perez (2009), who implied that service quality may affect extension attitude via perceived fit.

Finally, Del Vecchio and Smith (2005) concluded that extension category-perceived risk moderates the relationship between perceived fit and brand extension price premium. Therefore, further research could also adopt an extension category of perceived risk as a moderator to test our model.

Acknowledgement

The authors thank the AE and anonymous referees for their valuable time and precious comments to improve the quality of this paper. The financial aid is supported by the Ministry of Science and Technology, Taiwan (NSC 101-2410-H-151-007).

References

- Aaker, D. A., (1996), "Measuring Brand Equity across Products and Markets," *California Management Review*, 38, 102-20.

- Aaker, D. A., (2002), *Brand Portfolio Strategy*, New York: The Free Press.
- Aaker, D. A. and K. L. Keller, (1990), "Consumer Evaluations of Brand Extensions," *Journal of Marketing*, 54, 27-41.
- Agrawal, N. and D. Maheswaran, (2005), "The Effects of Self-construal and Commitment on Persuasion," *Journal of Consumer Research*, 31, 841-849.
- Arslan, F. M. and O. K. Altuna, (2010), "The Effect of Brand Extensions on Product Brand Image," *Journal of Product & Brand Management*, 19, 170-180.
- Beatty, S. E., L. R. Kahle, and P. Homer, (1988), "The Involvement-Commitment Model: Theory and Implications," *Journal of Business Research*, 16, 159-167.
- Bhat, S. and S. K. Reddy, (2001), "The Impact of Parent Brand Attribute Associations and Affect on Brand Extension Evaluation," *Journal of Business Research*, 53, 111-122.
- Boisvert, J., (2016), "Reciprocal Transfer of Brand Associations between Service Parent Brands and Upward Line Extensions: An Accessibility–diagnosticity Perspective," *Journal of Service Theory and Practice*, 26, 222-243.
- Boush, D. M. and B. Loken, (1991), "A Process-tracing Study of Brand Extension Evaluation," *Journal of Marketing Research*, 28, 16-28.
- Byrne, B. M., R. J. Shavelson, and B. Muthén, (1989), "Testing for the Equivalence of Factor Covariance and Mean Structures: The Issue of Partial Measurement Invariance," *Psychological Bulletin*, 105, 456-466.
- Cheung, G. W. and R. B. Rensvold, (2002), "Evaluating Goodness-of-fit Indexes for Testing Measurement Invariance," *Structural Equation Modeling*, 9, 233-255.
- Czellar, S., (2003), "Consumer Attitude towards Brand Extensions: An Integrative Model and Research Propositions," *International Journal of Research in Marketing*, 20, 97-115.
- DelVecchio, D. and D. C. Smith, (2005), "Brand-Extension Price Premiums: The Effects of Perceived Fit and Extension Product Category Risk," *Journal of the Academy of Marketing Science*, 33, 184-196.
- Dens, N. and P. D. Pelsmacker, (2010), "Attitudes toward the Extension and Parent Brand in Response to Extension Advertising," *Journal of Business Research*, 63, 1237-1244.
- Desai, K. K. and W. D. Hoyer, (1993), "Line Extensions: A Categorization and an Information Processing Perspective," *Advances in Consumer Research*, 20,

599-606.

de Ruyter, K. and M. Wetzels, (2000), "The Role of Corporate Image and Extension Similarity in Service Brand Extensions," *Journal of Economic Psychology*, 21, 639-659.

Executive Yuan, Taiwan (2012),

<http://www.motcmpb.gov.tw/MOTCMPBWeb/wSite/public/Attachment/f1401334901542.pdf>.

Fedorikhin, A., C. W. Park, and M. Thomson, (2008), "Beyond Fit and Attitude: The Effect of Emotional Attachment on Consumer Responses to Brand Extensions," *Journal of Consumer Psychology*, 18, 281-291.

Fedorikhin, A., C. W. Park, and M. Thomson, (2006), "How Far do Feelings Go? How Attachments Influence Brand Extensions," *Advances in Consumer Research*, 33, 631-631.

Feeney, J. A., (2004), "Transfer of Attachment from Parents to Romantic Partners: Effects of Individual and Relationship Variables," *Journal of Family Studies*, 10, 220-238.

Fishbein, M. and I. Ajzen, (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Reading, MA: Addison-Wesley.

Fornell, C. and D. F. Larcker, (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18, 39-80.

Grime, I., A. Diamantopoulos, and G. Smith, (2002), "Consumer Evaluations of Extensions and Their Effects on the Core Brand," *European Journal of Marketing*, 36(11/12), 1415-1438.

Hair, J., W. Black, B. Babin, R. Anderson, and R. Tatham, (2006), *Multivariate Data Analysis*, 6th edition, Uppersaddle River, N.J.: Pearson Prentice Hall.

Hayes, A. F., (2009), "Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium," *Communication Monographs*, 76, 408-420.

Hayes, A. F., (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-based Approach*, New York, NY: Guilford Press.

John, D. R., B. Loken, and C. Joiner, (1998), "The Negative Impact of Extensions: Can Flagship Products Be Diluted," *Journal of Marketing*, 62, 19-32.

- Keller, K. L., (1993), "Conceptualizing, Measuring, and Managing Customer-based Brand Equity," *Journal of Marketing*, 57, 1-22.
- Keller, K. L., (2003), *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, 2nd edition, New York: Prentice Hall.
- Keller, K. L. and S. Sood, (2003), "Brand Equity Dilution," *MIT Sloan Management Review*, 12-15.
- Kiesler, C. A., (1971), *The Psychology of Commitment: Experiments Linking Behavior to Belief*, San Diego: Academic Press.
- Kim, J. Y., (2003), "Communication Message Strategies for Brand Extensions," *Journal of Product & Brand Management*, 12, 462-476.
- Kim, K., J. Park, and J. Kim, (2014), "Consumer-Brand Relationship Quality: When and How It Helps Brand Extensions," *Journal of Business Research*, 67, 591-597.
- Klink, R. R. and D. C. Smith, (2001), "Threats to the External Validity of Brand Extension Research," *Journal of Marketing Research*, 38, 326-335.
- Lei, J., K. de Ruyter, and M. Wetzels, (2008), "Consumer Responses to Vertical Service Line Extensions," *Journal of Retailing*, 84, 268-280.
- Liu, A. H., M. P. Leach, and K. L. Bernhardt, (2005), "Examining Customer Value Perceptions of Organizational Buyers When Sourcing From Multiple Vendors," *Journal of Business Research*, 58, 559-568.
- Loken, B. and D. R. John, (1993), "Diluting Brand Beliefs: When do Brand Extensions Have a Negative Impact?" *Journal of Marketing*, 57, 71-84.
- Martínez, E., T. Montaner, and J. M. Pina, (2009), "Brand Extension Feedback: The Role of Advertising," *Journal of Business Research*, 62, 305-313.
- Martínez, E. and J. M. Pina, (2003), "The Negative Impact of Brand Extension on Parent Brand Image," *Journal of Product & Brand Management*, 12, 432-448.
- Milberg, S. J., C. W. Park, and M. S. McCarthy, (1997), "Managing Negative Feedback Effects Associated with Brand Extensions: The Impact of Alternative Branding Strategies," *Journal of Consumer Psychology*, 6, 119-140.
- Milberg, S. J., F. Sinn, and R. C. Goodstein, (2010), "Consumer Reactions to Brand Extensions in a Competitive Context: Does Fit Still Matter?" *Journal of Consumer Research*, 37, 543-553.
- Nunnally, J. C., (1967), *Psychometric Theory*, New York: McGraw-Hill.

- Park, C. W., M. S. McCarthy, and S. J. Milberg, (1993), "The Effects of Direct and Associative Brand Extension Strategies on Consumer Response to Brand Extensions," *Advance in Consumer Research*, 20, 28-33.
- Park, W. C., S. Milberg, and R. Lawson, (1991), "Evaluation of Brand Extensions: The Role of Product Feature Similarity and Brand Concept Consistency," *Journal of Consumer Research*, 18, 185-193.
- Pryor, K. and R. J. Brodie, (1998), "How Advertising Slogans Can Prime Evaluations of Brand Extensions: Further Empirical Results," *Journal of Product & Brand Management*, 7, 497-508.
- Raju, S., H.-R. Unnava, and N. Montgomery, (2009), "The Effect of Brand Commitment on the Evaluation of Nonpreferred Brands: A Disconfirmation Process," *Journal of Consumer Research*, 35, 851-863.
- Ramanathan, J. and S.-K. Velayudhan, (2015), "Consumer Evaluation of Brand Extensions: Comparing Goods to Goods Brand Extensions with Goods to Services," *The Journal of Brand Management*, 22, 778-801.
- Reast, J. D., (2005), "Brand Trust and Brand Extension Acceptance: The Relationship," *Journal of Product & Brand Management*, 14, 4-13.
- Riley, F., J. Pinab, and R. Bravo, (2015), "The Role of Perceived Value in Vertical Brand Extensions of Luxury and Premium Brands," *Journal of Marketing Management*, 31, 881-913.
- Salinas, E. M. and J. M. P. Perez, (2009), "Modeling the Brand Extensions' Influence on Brand Image," *Journal of Business Research*, 31, 1-10.
- Sheinin, D. A. and B. H. Schmitt, (1994), "Extending Brands with New Product Concepts: The Role of Category Attribute Congruity, Brand Affect, and Brand Breadth," *Journal of Business Research*, 31, 1-10.
- Sheinin, D. A., (2000), "The Effects of Experience with Brand Extensions on Parent Brand Knowledge," *Journal of Business Research*, 49, 47-55.
- Som, A. and N. Pape, (2015), "Brand and Line Extensions: An Empirical Study from the New Age Luxury Industry," *Journal of Luxury Research*, 1, 18-39.
- Steenkamp, J.-B. E. M. and H. Baumgartner, (1998), "Assessing Measurement Invariance in Cross-National Consumer Research," *Journal of Consumer Research*, 25, 78-90.
- Taylor, V. A. and W. O. Bearden, (2002), "The Effects of Price on Brand Extension

- Evaluations: The Moderating Role of Extension Similarity,” *Journal of Academy of Marketing Science*, 30, 131-140.
- Taylor, V. A. and W. O. Bearden, (2003), “Ad Spending on Brand Extensions: Does Similarity Matter?” *Brand Management*, 11, 63-74.
- van Riel, A., J. Lemmink, and H. Ouwersloot, (2001), “Consumer Evaluations of Service Brand Extensions,” *Journal of Service Research*, 3, 220-231.
- Vetrivel, V., A. Solayappan, and J. Jayakrishnan, (2015), “Effect of Customer Based Brand Equity Determinants on Brand Extension in Television Brands,” *International Journal of Business and Administration Research Review*, 3, 55-59.
- Völckner, F. and H. Sattler, (2006), “Drivers of Brand Extension Success,” *Journal of Marketing*, 70, 18-34.
- Volckner, F., H. Sattler, T. Hennig-Thurau, and C. M. Ringle, (2010), “The Role of Parent Brand Quality for Service Brand Extension Success,” *Journal of Service Research*, 13, 379-396.
- Wang, C.-Y. and L.-W. Wu, (2012), “Customer Loyalty and the Role of Relationship Length,” *Managing Service Quality*, 22, 58-74.
- Yoo, B. and N. Donthu, (2001), “Developing and Validating a Multidimensional Consumer-based Brand Equity Scale,” *Journal of Business Research*, 52, 1-14.