商管科技季刊　第十七卷　第四期　民國一〇五年
Commerce & Management Quarterly, Vol.17, No.4, pp.375~401(2016)

購併後產品適配度與品牌適配度對主併者品牌權益影響之研究

PRODUCT FIT AND BRAND FIT'S EFFECT ON AN ACQUIRER'S BRAND

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摘要

此項研究目的是為了瞭解企業購併後，產品適配度與品牌適配度對主併者品牌權益的影響。本研究以台灣個人消費者為分析單位，針對 383 位受訪者（172 位男性和 211 位女性）進行便利抽樣的問卷調查。調查結果顯示，品牌適配度與產品適配度的相互作用對品牌權益有顯著的影響，包括知覺品質、品牌聯想與品牌忠誠度。此外，研究結果也顯示，較低的產品適配度對品牌權益的影響比高的產品適配度更顯著。

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關鍵字：品牌適配度、產品適配度、品牌權益、購併

ABSTRACT

The purpose of this study is to understand the effect of brand fit and product fit on brand equity after M&A. The present study used convenience sampling with the individual customer in Taiwan serving as the unit of analysis. 383 respondents (172 males and 211 females) completed a questionnaire in Chinese. The results of this study showed that the interaction of brand fit and product fit has a significant effect on brand equity including perceived quality, brand association and brand loyalty. In addition, the results suggest that the relationship between brand fit and brand equity is influenced by product fit, in which a low product fit with a low brand fit has a greater effect on brand equity than a high product fit with a low brand fit.

Keywords: Brand Fit, Product Fit, Brand Equity, Mergers and Acquisitions

1. Introduction

Mergers and acquisitions (M&A) have become a critical and expeditious approach for businesses to expand globally, and this globalization has facilitated customer access to brands from other countries (Pappu, Quester, & Cooksey, 2007). M&A can enable acquiring companies to obtain technologies, products, distribution channels, and favorable market positions (Schweizer, 2005). In the M&A process, the acquiring company gains not only tangible assets but also intangible assets such as brands. Brands are the most crucial assets in M&A (Rao, Mahajan, & Varaiya, 1991；Keller, 1993；Bahadir, Bharadwaj, & Srivastava, 2008). The acquiring company must manage the migration of a brand to the new company successfully to ensure that customers remain loyal to the brand (Kumar & Blomqvist, 2004).

Numerous superior-image brands employ the M&A strategy to acquire other superior or even inferior brands (e.g., Mercedes-Benz acquired Chrysler to increase its market share and secure other advantages, such as patents). However, researchers have shown that approximately 70%-80% of M&A do not create a significant value higher than the annual cost of capital (Bruner, 2002；Clayton, 2010). The most critical factor that causes numerous mergers to fail to satisfy expectations is inadequate attention to corporate branding and brand image during the M&A process (Balmer & Dinnie, 1999；Jaju, Joiner, & Reddy, 2006). Thus, it is essential for managers to understand how differences between the two brand images can influence the acquirer's brand (Lee, Lee, & Wu, 2011); therefore, managers should know how the "brand fit" will affect the acquirer's superior image after an M&A. However, there has been little research in this area because the majority of researchers have emphasized tangible financial factors (Yang, Davis, & Robertson, 2012).

Many companies use not only in-market mergers but also cross-market mergers to obtain diversification opportunities (e.g., Google acquired Motorola Mobility). A study on brand alliance proposed that the consumers' perception of "product fit," or how they perceive two product categories as compatible, is expected to play a vital role in how consumers react to a brand alliance (Simonin & Ruth, 1998). Another study found that product fit is positively related to consumer attitudes (Bluemelhuber, Carter, & Lambe, 2007). Several distinct research streams have also supported this notion (Aaker & Keller, 1990；Dickinson & Heath, 2006). However, limited attention has been paid to the post-M&A impact of product fit on the consumers' evaluation of the acquirer brand. Previous studies have focused on the logic of a brand combination by investigating the impact of the fit between both brand images (i.e., brand-brand fit) or the fit between both product categories (i.e., product-product fit) on the evaluation of a new co-branded product (Bouten, Snelders, & Hultink, 2011) or a new brand alliance. However, no study has yet focused on the relationships between both brands and their existing product categories after M&A. Therefore, this study bridges the gap by investigating the post-M&A impact of product fit and brand fit on the acquirer's brand equity from the consumers' perspective.

2. Literature reviews and hypothesis

2.1 Brand Equity

Brand equity is a key topic in marketing (Buil, De Chernatony, & Martínez, 2008). Recently, the definition of brand equity has been increasingly refined within the customer-based context (Keller, 1993；Washburn, Till, & Priluck, 2004). Customer-based brand equity is derived from brand familiarity, as well as favorable, strong, and unique brand associations in the memory (Keller, 1993). Numerous dimensions and classifications have been proposed in the analysis of brand equity (Gil, Andrés, & Salinas, 2007). This study employs the five brand equity classifications from Aaker (1991) because they are the most acceptable to date (Lee et al., 2011). Aaker (1996) defined brand equity as a set of assets and liabilities linked to a brand, classified according to the dimensions of brand loyalty, brand awareness, perceived quality, brand association, and other proprietary brand assets. Among the five dimensions, it is difficult to measure other proprietary brand assets, such as patents or trademarks, and it is challenging to create an experiment capable of manipulating a consumer’s perception of brand awareness (Pappu, Quester, & Cooksey, 2006). Therefore, customer-based brand equity in this study comprises only three categories: perceived quality, brand loyalty, and brand association.

“Perceived quality is the consumers’ perception of the overall quality or superiority of a product or service compared to alternatives and with respect to its intended purpose” (Keller, 2008). In other words, individual product experience, consumption situations and unique needs might influence a consumer’s subjective perception of quality (Yoo, Donthu, & Lee, 2000). In addition, certain other specific product characteristics, such as advertisements, appearance, features, and brand name, would influence a consumer’s perception of quality (Rao & Monroe, 1989；Dodds, Monroe, & Grewal, 1991；Ramaseshan & Tsao, 2007). Perceived quality has become a critical business objective for companies, which motivates programs designed to increase brand equity (Aaker, 1992) since an improved perceived quality results in greater brand equity (Yoo et al., 2000). Furthermore, consumer behavior studies have found a relationship between quality and behavioral intentions (purchase) (Zeithaml, 1988；Dodds et al., 1991；Sanyal & Datta, 2011).

Brand loyalty is defined as “a deeply held commitment to rebuy or repatronize a preferred product /service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior” (Oliver, 1999). Brand loyalty develops when a brand fits a consumer’s self-image or personality, or when the brand provides a unique benefit that the consumer desires (Quester & Lim, 2003). A consumer’s satisfaction with his or her accumulated experience in purchasing the same brand can also build brand loyalty (Assael, 1993；Lin, 2010). Brand loyalty encourages repeated purchase behavior from consumers and discourages them from switching to competing brands (Yoo et al., 2000). Therefore, greater customer loyalty results in higher brand equity (Lee et al., 2011).

Brand association, which is any idea or concept that is “linked” in the memory to a brand (Aaker, 1991), comprises product attributes, users, consumer benefits, lifestyles and associations that can help consumers retrieve information, and can provide a reason for purchase (Aaker, 1992). A strong association can help communicate and position a brand (Aaker, 1990); as a result, “the more deeply a person thinks about product information and relates it to existing brand knowledge, the stronger the resulting brand association will be” (Keller, 2008). Brand equity occurs when consumers have a high level of awareness, and hold certain unique, strong and favorable brand associations in their memory (Tong & Hawley, 2009).

2.2 Product fit

The concept of product fit has received substantial attention in numerous academic studies, such as those on brand alliance and brand extension (Park, Milberg, & Lawson, 1991；Simonin & Ruth, 1998). According to a brand extension study, “product fit refers to consumers’ perceptions of the similarity of the product categories of the extension and the parent brand” (Bhat & Reddy, 2001). For brand alliance cases, the consumers’ perceptions of product fit, or how consumers perceive two product categories to be related or compatible, is also expected to play a significant role in consumers’ reactions to a brand alliance (Aaker & Keller, 1990；Simonin & Ruth, 1998；Delgado-Ballester & Hernández-Espallardo, 2008). This study proposes product fit as a consumer’s overall judgment regarding the similarities between the acquirer and the acquired product categories after M&A.

Why is the fit critical for a brand alliance, brand extension or even M&A? One reason is that “the transfer of the perceived quality of a brand will be enhanced when the two product classes in some way fit together” (Aaker & Keller, 1990). Information integration theory is the most accepted theory for explaining the fit in the existing branding literature (Simonin & Ruth, 1998；Saqib & Manchanda, 2008). Information integration theory proposes that “consumers evaluate a product by assigning weight and value to each piece of information, and then multiply the weight by the value to form an overall product evaluation” (Anderson, 1971, 1981；Chu, Chang, Chen, & Wang, 2008). The value of information is what a person perceives the information to mean; thus, if one type of information is more relevant, it would be assigned a greater weight in judgment formation compared with the others (Roggeveen, Bharadwaj, & Hoyer, 2007). According to information integration theory, if consumers perceive a better fit of the product categories of both brands, “the easier it will be for consumers to combine their favorable attitudes regarding the current products and transfer their positive attitudes to the new co-branded product" (Bouten et al., 2011). Simonin and Ruth (1998) found that product fit is positively related to attitudes toward a brand alliance. Buil, De Chernatony, and Hem (2009) demonstrated that the brand extension strategy on the parent brand equity is more favorable when the perceived fit is higher between the parent brand and the extension. In other words, according to the brand alliance and brand extension literature, M&A are more successful if the fit between the acquirer and the acquired product categories is high; a higher fit of the product categories after M&As results in stronger brand equity. Based on this overview, we propose the following hypotheses:

H1: A higher fit of the product categories after M&A results in a stronger brand association.

H2: A higher fit of the product categories after M&A results in a stronger brand loyalty.

H3: A higher fit of the product categories after M&A results in a stronger perceived quality.

2.3 Brand fit

Previous studies have identified that both product fit and brand fit are key elements that influence a consumer's response to a brand alliance (Lee, Lee, & Lee, 2013). A brand image is related to the consumer's perception of a brand (Nandan, 2004). Keller (1993) advocated that brand image is "the perceptions about a brand as reflected by the brand associations held in consumer memory." In other words, "brand image is what comes to the mind of the consumer when a brand name is mentioned" (Arslan & Altuna, 2010). A well-communicated brand image should help establish a brand's position, distinguish the brand from competitor brands, and improve the brand's market performance; therefore, it plays a complete role in building the long-term brand equity (Aaker & Keller, 1990；Bian & Moutinho, 2011).

A consumer's brand image arises from the cumulative effects of a firm's mix of marketing activities (Roth, 1994；Faircloth, Capella, & Alford, 2001). When consumers have a favorable brand image, the brand's messages have a stronger influence compared with the messages of a competitor's brand (Hsieh & Li, 2008). Therefore, the brand image is a critical determinant of a buyer's behavior (Burmann, Schaefer, & Maloney, 2008). Numerous marketing studies have suggested that the brand image is a vital factor affecting brand equity (Aaker, 1991；Biel, 1992, 1993；Faircloth, 2005；Chen, 2010). Villareji-Ramos and Sánchez-Franco (2005) focused on the impacts of marketing communications and price promotion on brand equity, indicating that the brand image is an antecedent of brand equity.

Faircloth et al. (2001) found that a more positive brand image results in greater brand equity and an increased willingness of the consumers to pay for the brand’s products or services.

“Brand fit refers to the consumers’ perception of brand image cohesiveness and associative consistency between the brands of marketing alliance” (Park, Jun, & Shocker, 1996；Simonin & Ruth, 1998；Bluemelhuber, Carter, & Lambe, 2007). The similarities in the image, abstract meanings and benefits between the host and the partner brands can be reflected by the brands fitting as a conceptual consistency (Park et al., 1991；Lee et al., 2011). Based on information integration theory, Simonin and Ruth (1998) proposed that a high brand fit would help consumers combine their brand attitude, and transfer this attitude smoothly to the new co-branded product. Another study on brand extension demonstrated that a greater perceived brand image fit between the extension and the core brand results in a more favorable perception of the extension (Martinez & Pina, 2010). In other words, according to the brand alliance and brand extension literature, M&A are more successful when the image fit between the acquirer and the acquired brand is high, and a higher fit of the brand image after M&As results in stronger brand equity. Based on this overview, we propose the following hypotheses:

H4: A greater fit of the brand image after M&A results in a stronger brand association.

H5: The greater fit of the brand image after M&A results in a stronger brand loyalty.

H6: The greater fit of the brand image after M&A results in a stronger perceived quality.

A consumer’s attitude toward a brand alliance would affect the subsequent impression of each partner’s brand, and these effects depend on factors, such as product fit and brand congruity (Simonin & Ruth, 1998). Regarding brand extension, an extension with a good fit can reinforce the parent brand equity, such as the brand image (Buil et al., 2009). By contrast, “brand extensions that do not fit the current product category of a brand can still become a success when the extended product fits the brand-unique associations of the brand” (Bouten et al., 2011). For example, Jeep, a famous automobile company, extended its product line to baby strollers, which was considered a successful brand extension (Makula, Sprung, & Tipping, 2004), in which “Jeep ensured that its line of baby gear communicated its brand image by the look and feel of it’s extension” (Bouten et al., 2011). On the other hand, Simonin and Ruth (1998) proposed that “brand fit was more important than product fit, and its importance even increased in the case of high compared to low familiarity brands" (Genuens & Pecheus, 2006). Just like Google acquired youtube, both these two brand are belong two different industry but both they have best image brand. After 10 years of the acquisition, this case has seen as the best acquisition case by Google (Lipton, 2014). Based on this overview, we propose the following hypotheses:

H7: Product fit interacts with brand fit after M&A, such that

H7-a: A higher product fit compensates for an inferior brand fit effect after M&A.

H7-b: A strong brand fit compensates for a lower product fit after M&A.

3. Methodology

3.1 Research design

We conducted this study to measure how different levels of variance in product fit and brand fit affect an acquirer's brand equity after M&A. The experimental design in this study involved the manipulation of two variables: the gap between product fit and brand fit after M&A. Product fit consisted of two levels: a brand using in-market acquisitions (high fit), and a brand using cross-market acquisitions (low fit). The brand image also involved two levels: a brand with a superior image acquires another brand with a superior image (high fit), and a brand with a superior image acquires a brand with a poor image (low fit). This study was subject to a 2 (product fit) × 2 (brand fit) between-subjects research design. The gap between product fit and brand fit comprised between-subjects factors. We conducted MANOVA to analyze our results.

3.2 Pretest

The data from the National Communication Commission (NCC) in Taiwan showed that the mobile phone penetration rate (number of mobile phones per 100 users)reached 124.3% in Taiwan in 2012, with an increase of 1 million users compared with 2011 (http://www.find.org.tw/find/home.aspx?page=many&id=333); mobile phones have become increasingly popular in Taiwan. Moreover, the largest mobile phone brand in Taiwan, HTC, has used the M&A strategy to increase its market share. Therefore, mobile phone users were appropriate subjects for recruitment in this study for examining the product fit and brand fit effects on consumer perceptions. Based on these points, we conducted three rounds of pretests to assess how consumers regard product categories and brand image perception.

This study employed naming methods for Pretest 1 (Fazio, 1990；Pappu et al., 2006；Lee et al., 2011). Pretest 1 involved sampling customers who had experience using a mobile phone. The respondents were asked to create a list of product categories, in which the product category fit with the mobile phone industry is high and low. Pretest 1 entailed sampling 40 consumers with 7.24 years of experience using mobile phones. The results revealed that the mobile phone industry has a high product fit compared with the camera industry, which is a low-fit industry.

Pretest 2 also involved using naming methods to survey customers on their opinions regarding superior and inferior image brands in the product categories in Pretest 1. Pretest 2 entailed sampling 38 consumers with 11.03 years of experience using mobile phones and 8.24 years of experience using a camera. The results revealed that Apple has a superior image brand for mobile phones; therefore, we designated Apple as the acquirer brand. Samsung was found to have the second superior image brand; thus, this study used Samsung as the superior image acquired the brand. In addition, Chang Jiang was considered the mobile phone brand with an inferior image. Regarding the camera industry, the results revealed that Canon is the superior image brand, whereas BenQ is the inferior image camera brand.

Pretest 3 involved surveying consumers on the product fit and brand fit based on the results of Pretests 1 and 2. The respondents rated product fit and brand fit on a 7-point bipolar semantic differential scale. Measures for the dimensions of product fit and brand fit were based on previous Aaker and Keller (1990) and Simonin and Ruth (1998). Product fit and brand fit were grounded by “is/is not consistent” and “is/is not complementary.” We also conducted Student’s t-test to verify whether there is a significant difference in perceived product fit and brand fit between the brands from these product categories.

In addition, we performed a paired-sample t-test to determine whether there is a significant difference between product fit and brand fit in Pretest 2. Pretest 3 involved sampling 42 consumers, and the results of product fit revealed that for the mobile phone industry versus the camera industry, $p = .000$. In addition, regarding consumers’ perception of brand fit, for Apple-Samsung versus Apple-Chang Jiang, $p = .000$; and for Apple-Canon versus Apple-BenQ, $p = .009$. In other words, between the two industries and brands, all of them were found to have a significant difference in product fit and brand fit.

4. Survey instrument and measures

For this study, we employed an online questionnaire composed of three sections. Section 1 contained information regarding a fictional international M&A. We created four versions of the M&A, with each questionnaire containing one version.

In Section 2, the respondents were asked to rate their perception of the acquirer brand. The questionnaire was made up of items measuring the various dimensions of brand equity, including brand loyalty, brand association, and perceived quality (see Appendix I). The respondents rated their perception of these dimensions on a 5-point Likert-type scale. The measures for the dimensions of brand equity were based on previous studies (Aaker, 1991, 1996；Aaker, 1997；Dodds et al., 1991；Yoo et al., 2000；Yoo & Donthu, 2001；Pappu et al., 2007).

The measures for perceived quality were adapted from Dodds et al. (1991), Aaker (1991), Yoo et al. (2000), Pappu et al. (2006), and Lee et al. (2011). For example, the respondents were asked to rate the statement, “After M&A, brand X must be of very good quality” on a scale from 1 to 5. The brand loyalty items were adapted from Aaker (1991) and Yoo et al. (2000). For example, the respondents rated the statement, “After M&A, brand X would be my first choice” on a scale from 1 to 5.

Aaker (1996) stated that the measurement of brand associations could be structured through three perspectives: brand value, brand personality, and organizational association. However, in Aaker’s research, the brand value focused on the monetary value, whereas we did not mention the price of the brand after an M&A. Therefore, for the purpose of this study, the brand association comprises two parts: brand personality and organizational association. The respondents were asked to rate statements such as, “I trust the company which makes brand X” on a scale from 1 to 5. Every item was anchored from 1 (strongly disagree) to 5 (strongly agree). All of the survey items were written in Chinese.

Section 3 of the questionnaire involved gathering respondent demographics, such as gender, age, and the level of education. The questions in Sections 2 and 3 were identical in all four versions of the questionnaire. The questions in Section 1 varied depending on the version that was administered. Each respondent completed only one version of the questionnaire.

4.1 Sampling

We employed convenience sampling, with the individual customer in Taiwan as the unit of analysis. There were 383 respondents (172 males and 211 females) who completed an online questionnaire in Chinese (Table 1). The profiles of the respondents are shown in Table 2.

4.2 Results

4.2.1 Reliability and manipulation check

We used Cronbach's α to determine whether they had acceptable levels of reliability in order to analyze the scales for all of the constructs (Nunnally, 1978). Table 3 lists the reliability estimates. All of Cronbach's α values were higher than 0.7, indicating that every construct had an acceptable reliability.

We performed manipulation checks to confirm that the manipulations were successful. The t-test results revealed a significant difference between brand fit and product fit. The results revealed the following: High brand fit versus Low brand fit, $p = .000$; and High product fit versus Low product fit, $p = .000$. The results indicated that the manipulations of the brand fit and the product fit functioned as intended.

4.2.2 Main effect

To analyze the effect of each variable in detail, we conducted MANOVA to test the hypotheses. Table 4 lists the means and the standard deviations for the variance of the product fit and the brand fit. Table 5 lists a summary of the MANOVA results, demonstrating that the different levels of product fit after M&A have a significant effect on brand equity, except for brand loyalty. However, Table 4 shows that the scores for low product fit were higher than those for high product fit; therefore, the results did not support H1 to H3. In addition, Table 5 indicates that all three dimensions of brand equity were significant for brand fit; thus, the results supported H4 to H6.

Table 1 Between-subjects factors cell sizes

	Product fit		
Brand fit	High product fit	Low product fit	Total
High brand fit	92	94	186
Low brand fit	99	98	197
Total	191	192	383

Table 2 Description of respondent

Item	Description	Frequency	Percentage
Gender	Male	172	44.9%
	Female	211	55.1%
Education	Junior High school	5	1.3%
	High school	49	12.8%
	College	41	10.7%
	University	269	70.2%
	Master/PHD	19	5%
Age	< 20	23	6%
	21-30	198	51.7%
	31-40	121	31.6%
	41-50	30	7.8%
	> 50	11	2.9%

Table 3 Reliability estimates

Perceived quality	Brand association	Brand loyalty
0.944	0.952	0.939

Table 4 Means and standard deviations

	Brand fit		Product fit	
Brand equity	High fit	Low fit	High fit	Low fit
Perceived quality	3.52	2.43	2.85	3.08
	(1.00)	(1.10)	(1.27)	(1.08)
Brand association	3.49	2.37	2.77	3.06
	(1.03)	(1.09)	(1.08)	(1.30)
Brand loyalty	3.40	2.30	2.73	2.94
	(1.21)	(1.22)	(1.42)	(1.23)

Table 5 MANOVA results: significance of multivariate tests

	Brand equity	df	F value	P value	Wilks Lambda
Product fit	Perceived quality	1,279	3.98	0.047*	0.975
	Brand association	1,279	6.60	0.011*	
	Brand loyalty	1,279	2.16	0.142	
Brand fit	Perceived quality	1,279	106.19	0.00**	0.768
	Brand association	1,279	110.46	0.00**	
	Brand loyalty	1,279	81.65	0.00**	
Brand fit × product fit	Perceived quality	1,279	9.33	0.002*	0.965
	Brand association	1,279	10.19	0.002*	
	Brand loyalty	1,279	13.33	0.000**	

*deemed significant at the 0.05 level;
**deemed significant at the 0.01 level

In addition, we conducted MANOVA to demonstrate the interaction effect between brand fit and product fit (Table 6). The results revealed that all three dimensions of brand equity had a significant two-way interaction between brand fit and product fit. Since an interaction effect had emerged for the three dimensions of brand equity, we conducted the simple main effect test for each brand fit and product fit to examine the differences between these dimensions in greater detail.

The one-way MANOVA results for high brand fit revealed a non-significant product fit effect, reflecting the non-significant brand equity index discounts for product fit. The MANOVA results for low brand fit revealed a significant product fit effect; however, the results demonstrated that the three dimensions of brand equity for low product fit are higher than for high product fit, possibly because the mobile phone brand Chang Jiang is not famous in Taiwan. Furthermore, it is from China, and consumers in Taiwan do not trust Chinese brands; thus, even if the brand has a high product fit, it might be subject to a lower perception from consumers. By contrast, although Benq is not a specialized brand in the camera industry, it is one of the best 100 brands in Taiwan. Compared with Chang Jiang, Benq would elicit more trust and attraction from consumers in Taiwan; thus, Benq would secure higher scores in brand equity when compared with Chang Jiang.

We conducted a one-way MANOVA for product fit to determine whether it had a high or a low product fit; the dimensions of brand equity were all found to be significantly higher in high brand fit compared with the low brand fit (Table 7). The results revealed significant brand equity index discounts for brand fit.

Table 6 Simple main effect of Brand fit

Brand fit	Brand equity	High product fit	Low product fit	F-value (P)
HIGH fit	Quality	3.58	3.47	0.58(0.44)
	Association	3.52	3.46	0.19(0.66)
	Loyalty	3.54	3.27	2.24(0.13)
LOW fit	Quality	2.16	2.70	12.35(0.01)**
	Association	2.05	2.68	16.91(0.00)**
	Loyalty	1.90	2.61	13.88(0.00)**

*deemed significant at the 0.05 level;
**deemed significant at the 0.01 level

Table 7 Simple main effect of variance of product fit

Product fit	Brand equity	High brand fit	Low brand fit	F-value (P)
High fit	Quality	3.58	2.16	85.08(0.00)
	Association	3.52	2.06	88.09(0.00)
	Loyalty	3.54	1.99	80.02(0.00)
Low fit	Quality	3.47	2.70	27.61(0.00)
	Association	3.46	2.68	28.63(0.00)
	Loyalty	3.27	2.61	14.58(0.00)

5. Conclusion and implications

M&A have recently become more active than before, but the outcomes have tended to fail to match expectations (Nelsestuen, 2008；Yang et al., 2012). Companies spend more than $2 trillion on acquisitions every year, but studies have consistently placed the failure rate of M&A between 70% and 90% (Christensen, Alton, Rising, & Waldeck, 2011). How to maintain the acquirer’s brand value and the acquired brand value is the most crucial issue for managers. However, studies on brand management after M&A have been surprisingly rare. Our study is one of the few to examine how brand fit and product fit affect brand equity after M&A.

We tested Hypotheses 1 to 3 to determine the fit between two product industries with the three dimensions of brand equity. The results revealed that H1 to H3 were not supported. Although the results are not in agreement with those obtained in other studies on product fit (Simonin & Ruth, 1998；Hamzaoui & Merunka, 2006), we obtained another finding based on the results. Mokhlis and Yaakop (2012)；Siddique, Jami, and Ali (2013) have found that a camera is a crucial criterion for a consumer’s choice of mobile phones.

Therefore, camera functionality and the quality of new mobile phone cameras are relatively good, and mobile phones facilitate the sharing of images with friends, irrespective of location. Based on these studies, although the camera industry has a low product fit with mobile phones, it is a critical criterion for consumers when selecting a mobile phone to purchase. Thus, consumers might believe that acquiring a camera company might be a low product fit, but it can result in a crucial complementary product fit because it can enhance the quality of the acquirer's camera. However, even when acquiring a company with a high product fit (a mobile phone company), consumers might question whether a merger between two substitute brands would result in a superior product. In addition, respondents might not believe that these two companies can achieve synergy after the M&A.

We also conducted MANOVA to test Hypotheses 4 to 6, and to determine the fit between two brand images with the three dimensions of brand equity. The results indicated that brand fit had a significant positive effect on the three dimensions of brand equity. According to information integration theory, consumers form and modify their beliefs and attitudes by integrating any other additional information they receive with their previous attitudes and beliefs (Rodrigue & Biswas, 2004). Therefore, if consumers perceive a superior brand fit of both brands after an M&A, it would be easier for them to combine their favorable attitudes regarding the two brands, and transfer their positive attitudes to the acquirer brand after the M&A.

The MANOVA results for the interaction between brand fit and product fit are crucial for brands after M&A. The results suggest that the relationship between brand fit and brand equity is influenced by product fit, in which a low product fit with a low brand fit has a greater effect on brand equity than a high product fit with a low brand fit. Moreover, the effects of a high brand fit do not differ in product fit. These findings are not in agreement with those of previous studies that have found that a strong product fit can increase a consumer's perception of the brand alliance (Simonin & Ruth, 1998). Moreover, our findings are not in agreement with those of studies on brand extension, in which an extension with a good fit can reinforce parent brand equity, such as the brand image (Buil et al., 2009), but these findings are in line with those obtained from the mobile phone industry. The results demonstrated that when acquiring a brand with a low brand fit, acquiring a complementary product is ideal compared with acquiring a substitute company. For example, Google acquired Android Inc. for its mobile unit; as of 2014, Android has 80% of the mobile market share.

The results also implied that the relationship between product fit and brand equity is influenced by product fit, implying that a high product fit exerts a greater effect on brand equity compared with a low product with a high and a low brand fit, irrespective of the brand fit. Based on the results, we can infer that brand image fit is a critical factor affecting the consumers' evaluation of an acquirer's brand, and a higher brand fit after M&As result in stronger brand equity.

5.1 Theory and Managerial Implications

The present study provides new aspects related to fit that a consumer takes into account when they evaluate a brand after merging or acquiring other brand and all of these fit measures may be important for academic studies and companies.

In the research of Lee et al. (2011), they examined the relationship between the variance of two brand images and dimensions of brand equity after M&A, especially when the acquirer-dominant is affiliated to a weak brand image and the acquired one has a stronger brand image. The results showed that greater the perceived differences between acquirers and acquired brands, the more the brand equity of the acquirer will increase. The present study provides an another perspective on brand image fit, and we found that brand fit has a significant effect on brand equity. No matter the degree of product fit or brand fit has a significant effect on brand equity, but also products with lower brand fit has more effect on brand equity than those with high product fit. When this two brand has high image fit, the acquirer can get more evaluation in brand equity, that is when the acquirer merges a suitable image brand, even the acquirer is an inferior image brand, can also get a beneficial harvest after M&A.

Harlam, Krishna, Lehmann, and Mela (1995) found that "bundles composed of compliments have a higher purchase intent than bundles of similar or unrelated products." Sheng, Parker, and Nakamoto (2007) proposed that the complementarity of bundle components can minimize the negative effects of a price discount by modifying a consumer's selection of mental accounts in the evaluation process.

If overall complementarity and consistency were the only considerations when consumers evaluate a potential brand alliance, they consider independent dimensions of the brand image when assessing the fit between the brands, and that these perceptions will influence their view of the co-branded product offering (Riley, Charlton, & Wason, 2015).

The findings of our study reveal that the brand equity of the product with low product fit (complementary product fit) is better than that of the product with high product fit, in other words, a low product fit has a greater effect on brand equity compared with a high product fit, from which we can infer that searching for a proper complementary product may be good for the acquirer. When the two brand image is low fit, all the three dimensions of brand equity for low product fit are higher than for high product fit. Thus when the two brand image is totally different, the best strategy for the acquirer to use is diversification.

Addition to brand fit, the present study also used some scenarios to investigate how the interaction effect of brand fit and product fit affect acquirer after M&A. The results have a more completely findings, the interaction of brand fit and product fit has a significant effect on brand equity including perceived quality、brand association and brand loyalty.

The product categories are perceived to fit in the eyes of the customer will the co-branded product be successful (Helmig, Huber, & Leeflang, 2007). When an acquirer selects a target for an M&A, the brand image and reputation should be the first consideration. The research results revealed that a higher fit of the brand image after an M&A results in a stronger brand equity. Thus, the acquisition of a high-image brand increases both the consumers' perception of the acquirer and the money they are willing to pay for the brand's products /services, as well as the consumers' switching cost.

5.2 Limitations and Future Research

We focused on only one variable in this study (i.e., product fit) for the in- and cross-markets to classify the high and low product fit. However, our results revealed a low product fit, but complementary brands were subject to a superior perception compared with a brand with a high product fit. Aaker and Keller (1990) identified three dimensions of perceived fit: substitutability, complementarity, and transferability. Future researchers can use these three dimensions to identify the ideal strategy for use in M&As.

We employed only extraneous factors to investigate how brand fit and product fit affect consumers' perception of an acquirer. However, numerous internal factors of a brand, such as brand personality, also affect consumers' evaluation of two such brands after an M&A. Future studies can use internal brand factors to analyze the effect on two brands after an M&A.

Many inferior brands engage in M&As to acquire a superior-image brand, in order to increase its brand image or market share (e.g., TATA Motors acquired Jaguar and Land Rover).

However, studies have seldom investigated the effect on the acquired brand after an M&A. Therefore, future researchers can analyze the effect on the acquired brand after M&As.

ACKNOWLEDGEMENT

This research is funded by Ministry of Science and Technology (MSC) under Grant Number 102-2410-H-231-005.

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105 年 **07** 月 **13** 日收稿

105 年 **07** 月 **19** 日初審

105 年 **09** 月 **29** 日複審

105 年 **10** 月 **07** 日接受

Appendix I

	Indicator	Sources
Perceived quality	After M&As, brand X must be of very good quality After M&As, brand X would offer products of consistent quality After M&As, brand X would offer very durable products After M&As, brand X would offer very reliable products	Aaker (1991)； Yoo et al. (2000)； Pappu et al. (2006)； Lee et al. (2011)
Brand association	It is appropriate to describe the products offered by brand X as up-market after M&As It is appropriate to describe the products offered by brand X as tough after M&As I like the company which makes Brand X after M&As I will feel proud to own products from the company which makes brand X after M&As I trust the company which makes brand X after M&As	Aaker (1991, 1996)； Aaker (1997)； Pappu et al. (2006)； Lee et al. (2011)
Brand loyalty	I consider myself loyal to brand X after M&As If I want to buy mobile phone, brand X after M&As would be my first choose	Pappu et al. (2006)； Lee et al. (2011)

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