

# 品牌心理擁有感之量表發展

The Scale Development of Brand Psychological Ownership

## 摘要

本研究延伸自組織心理擁有感理論觀點，並根據 Hinkin (1998) 之做法，進行品牌心理擁有感量表發展。從台灣連鎖加盟組織客服人員獲得 361 份有效樣本，本研究進行探索性因素分析 (EFA) 與驗證性因素分析 (CFA)，發現品牌心理擁有感之三構面，包括：品牌效能感、品牌責任感與認同感、品牌歸屬感。結果顯示品牌心理擁有感量表具有高信度與效度，本研究進一步探討研究發現意涵、研究限制與未來研究。

### 【關鍵字】

品牌心理擁有感、量表發展

## Abstract

The primary objective of this study was to develop a scale of brand psychological ownership that extends from theoretical perspectives of organizational psychological ownership. The procedures described in Hinkin (1998) were followed in the development of this scale. A survey was conducted, including a sample of 361 customer-service employees from franchise organizations in Taiwan. Three dimensions of brand psychological ownership were obtained after EFA and CFA, and these included brand self-efficacy, brand accountability and identification, and belongingness of the brand. The results represented a scale of brand psychological ownership with high reliability and validity. The implications of our findings, their limitations, and future studies are discussed.

### 【Keywords】

brand psychological ownership, scale development

## 1. Introduction

Compared with extensively studied topics related to brand management (i.e., perception, association, and extension), brand psy-



江旭新  
Hsu-Hsin Chiang



張愛華  
Ai-Hwa Chang



韓志翔  
Tzu-Shian Han



psychological ownership is a new construct that has only recently attracted the attention of practitioners and academics. Brand psychological ownership is an extension of the concept of organization psychological ownership. Pierce et al. (2001) asserted that psychological ownership is a feeling of possessiveness that makes organizational members become psychologically tied to tangible and intangible objectives. Van Dyne and Pierce (2004) argued that psychological ownership is a psychologically experienced phenomenon that makes employees produce possessive feelings toward the target. Avey et al. (2009) asserted that psychological ownership is a cognitive-affective construct where organizational members feel that organization targets as their personally, and thus this is reflected in employee awareness, thoughts, and beliefs. Extending from the aforementioned perspectives, brand psychological ownership is the psychological state where organizational members feel that they are psychologically tied to the brand of an organization.

Brand psychological ownership is particularly critical in a franchise organization because the brand image, organizational reputation, and corporate name, which can be enhanced by practices of corporate branding (Souiden et al., 2006), are crucial assets. According to Burmann and Zeplin (2005), an employee's cognition (i.e., brand commitment) can be improved by branding practices that include brand leadership, brand communication, and brand-centered human resource management (HRM). Similarly, a franchisee organization may adopt practices of corporate branding (i.e., brand-centered HRM, brand leadership, and brand communication) to induce feelings of brand psychological ownership in organizational members, thus contributing to brand image, organizational reputation, and corporate name. For example, McDonald's and Wang Steak have adopted several practices of corporate branding (i.e., brand training and brand communication) to make employees feel that they are closely connected with the corporate brand, and thus adopt a superior service attitude and behavior. However, few researchers have explored the construct of brand psychological ownership; a gap exists in the literature concerning the field of brand psychological ownership. Organizational

members who demonstrate psychological ownership engender a feeling of possession concerning tangible and intangible objects (Pierce et al., 1991). Employees that demonstrate brand psychological ownership have a strong psychological connection with the product and with the corporate brand. Van Dyne and Pierce (2004) argued that employees who demonstrate organizational psychological ownership possess three traits, including a positive attitude and a sense of responsibility toward the target, all of which contribute to organizational citizenship behavior. From this perspective, brand psychological ownership can induce positive brand attitudes and behavior in employees. Wang Steak employees who demonstrate brand psychological ownership exhibit feelings of ownership toward the corporate brand and feel effective in brand-related activities. For example, Wang Steak employees can participate in brand-related decision-making through the “Awaking Lion Program.” However, the formation of brand psychological ownership has not been fully explored. Therefore, researchers must explore the key concepts and contents of brand psychological ownership.

According to previous research, numerous scholars have investigated organizational psychological ownership (Pierce et al., 2001; Van Dyne & Pierce, 2004; Chi & Han, 2008; Pierce et al., 2009; Avey et al., 2009), and have revealed that organizational psychological ownership is a critical concern. Brand psychological ownership is as crucial as psychological ownership in the organization, and services to enhance an organization’s competitive advantage within a diverse environment. Building on the theory of organizational psychological ownership, four dimensions of psychological ownership were proposed by Avey et al. (2009): self-efficacy, accountability, belongingness, and self-identity. Compared with organizational psychological ownership, few researchers have explored brand psychological ownership, and thus a large gap exists in the exploration of the key concepts and contents of brand psychological ownership. Researchers have not yet developed a scale of brand psychological ownership that can help academics and practitioners to use this construct. To fill the research gap, this study aimed to develop a scale of brand psychological ownership.



## 2. Literature Review

This paper first discusses the concepts, definitions, and dimensions of brand psychological ownership according to the existing literature. Based on these concepts and definitions, this study developed a scale of brand psychological ownership.

### 2.1 The Definition of Brand Psychological Ownership

Psychological ownership is defined as “a state of the mind in which individuals feel as though the target of ownership (material or immaterial) or a piece of it is ‘theirs’” (Pierce et al., 2001, p. 299). Within an organization, psychological ownership is regarded as a state in which employees demonstrate a sense of ownership of the organization (Chi & Han, 2008). Van Dyne and Pierce (2004) defined psychological ownership as a cognitive-affective construct whereby people develop feelings of ownership toward targets that are substantial or nonsubstantial (tangible or intangible objects), such as subgroups, ideas, people, and artistic creations. The cognitive components of psychological ownership have an effect on employee beliefs, thoughts, and awareness (Pierce et al., 2001; Pierce et al., 2009; Avey et al., 2009).

Building on previous research (i.e., Pierce et al., 2001; Van Dyne & Pierce, 2004; Chi & Han, 2008; Pierce et al., 2009; Avey et al., 2009), this study defined brand psychological ownership as a state in which organizational members feel ownership and possessive experience toward a corporate brand. We argue that brand psychological ownership refers to a psychological state where organizational members (i.e., managers, teams, and employees) experience a sense of ownership toward the corporate brand, namely, that brand psychological ownership can cause organizational members to demonstrate positive brand cognition and brand attitudes, including feelings of ownership toward corporate brands and an altruistic spirit toward brand-related activities. Furthermore, we contend that employees who demonstrate brand psychological ownership may demonstrate a positive attitude toward

the corporate brand, identify themselves according to the corporate brand, feel that they are effective in brand-related activities, and desire to defend the corporate brand.

## **2.2 Key Concepts of Organizational Psychological Ownership and Brand Psychological Ownership**

Organizational psychological ownership and brand psychological ownership contribute to the relationship between the organization and organizational members. It is necessary for researchers to explore the differences between organizational psychological ownership and brand psychological ownership. Employees with organizational psychological ownership may regard themselves as owners of the organization (Pierce et al., 2001; Wagner et al., 2003), and thus produce a psychological contract that strengthens the relationship between employees and an organization, making employees more willing to work beyond their in-role responsibilities (Rousseau, 1989). As argued by Pierce et al. (2001), organizational psychological ownership has three roots: having a place or home, feelings of efficacy, and self-identity. The first root can satisfy employees' sense of belonging, and causes employees to become invested as organizational members, feeling that they are different from people in other groups (McMillan & Chavis, 1986). Employees may develop personal spaces that cause them to have a positive attitude and to closely interact with other colleagues because of these differences (Ehrlich & Graeven, 1971). The second root, feelings of efficacy, makes employees feel that they are effective, critical, and valuable within the organization (Masterson & Stamper, 2003). Employees that demonstrate organizational psychological ownership may feel that they are effective and valuable to the organization (McMillan & Chavis, 1986). The third root, self-identity, causes an employee to identify themselves with the organization to understand their unique characteristics, including personal traits and values (Pierce et al., 2001). Therefore, employees that demonstrate psychological ownership are more willing to invest themselves in the organization and participate in organizational decision-making (Pierce et al., 2001; Van Dyne



& Pierce, 2004). Drawing on the perspectives of Pierce et al. (2001), this study argued that brand psychological ownership has three roots: a sense of belonging with respect to the corporate brand (i.e., employees feel that they are closely linked with the corporate brand), the efficacy of the corporate brand (i.e., employees feel effective in brand-related activities), and corporate brand image extension (i.e., employees ensure that their image is consistent with the image of the corporate brand). Compared with organizational psychological ownership, which focuses on the organization, brand psychological ownership is regarded as a construct focused on the corporate brand.

Employees with organizational psychological ownership express three dominant traits: particular attitudes, a particular self-concept, and a sense of responsibility (Van Dyne & Pierce, 2004). The first trait, attitude, makes employees express positive feelings toward tangible and intangible targets (i.e., corporate brand), and then to express a positive attitude toward the target (Van Dyne & Pierce, 2004; Nuttin, 1987). The second trait, self-concept, makes organizational members view tangible and intangible targets as their extensions (Van Dyne & Pierce, 2004; Dittmar, 1992). Therefore, tangible and intangible targets are linked to a person's self-concept (Furby, 1978; Van Dyne & Pierce, 2004). The third trait, a sense of responsibility, makes organizational members take responsibility in protecting or defending their ownership rights (Furby, 1978; Van Dyne & Pierce, 2004). Drawing on the perspectives of Van Dyne and Pierce (2004), we argue that organizational members who demonstrate brand psychological ownership demonstrate specific traits, including a positive attitude (i.e., employees defend the corporate brand when others criticize it), accountability (i.e., employees feel responsible for the enhancement of corporate brand equity), and identification (i.e., employees identify with the beliefs, values, and norms of the corporate brand proposed by senior managers). The comparison between organizational psychological ownership and brand psychological ownership is presented in Table 1.

Table 1 Comparison between organizational psychological ownership and brand psychological ownership

Constructs	Roots and traits	Sources
Organizational psychological ownership	1. Three roots of psychological ownership include having a place or home, feelings of efficacy and effectance, and self-identity. 2. Three traits of psychological ownership include attitudes, self-concept, and sense of responsibility.	Pierce et al. (2001) Van Dyne et al. (2004)
Brand psychological ownership	1. Three roots of brand psychological ownership include sense of belonging toward the corporate brand, efficacy and effectance of the corporate brand, and corporate brand image extension. 2. Three traits of brand psychological ownership include positive attitude, accountability, and identification toward the corporate brand.	This research

Source: this research

### 2.3 Brand Psychological Ownership, Brand Commitment, and Organizational Commitment

Brand psychological ownership is different from brand commitment and organizational commitment. Brand commitment is regarded as an employees' psychological attachment to the brand, which makes them express an altruistic spirit with respect to the brand (Burmann & Zeplin, 2005). Three aspects that drive brand commitment are compliance, identification, and internalization (Burmann & Zeplin, 2005). Organizational commitment is regarded as an attitude that makes employees identify with organizational goals, and thus invest themselves wholly within the organization (Mowday et al., 1979). Pierce et al. (2001) asserted that organizational commitment, which focuses on the willingness of employees to stay with the organization, differs from psychological ownership.

Extending the studies of Pierce et al. (2001) and Van Dyne and Pierce (2004), we propose three roots of brand psychological ownership: a sense of belonging with respect to the corporate brand, the efficacy of the corporate brand, and corporate brand image extension. Three traits of brand psychological ownership are a positive attitude, accountability, and identification. In conjunction with several scholars (Pierce et al., 2009; Avey et al., 2009), this study argued that brand



psychological ownership is a state in which organizational members feel a sense of ownership, causing them to demonstrate a positive attitude and an altruistic spirit with respect to the brand. As for the consequences of organizational psychological ownership, Walle et al. (1995) demonstrated that psychological ownership affects a person's altruistic spirit through organizational commitment. On the basis of empirical results, this study argued that brand psychological ownership may affect a person's brand altruistic spirit by means of brand commitment.

#### **2.4 The Definitions of Dimensions of Brand Psychological Ownership**

This study further defined five dimensions of brand psychological ownership, as follows

##### **2.4.1 Self-efficacy of Corporate Brand**

Pierce et al. (2001) defined feelings of efficacy as an ownership or a right that allows people to explore and alter their environment, thus satisfying their innate need of efficacy. Avey et al. (2009) defined self-efficacy as person's belief that they can implement a specific task successfully. On the basis of studies by Pierce et al. (2001) and Avey et al. (2009), this study defined the self-efficacy of a corporate brand as an employee's belief that they can communicate the values of the corporate brand to their family, friends, or customers, as well as successfully relay customer feedback to the organization.

##### **2.4.2 Image Extension of Corporate Brand**

People use the concept of ownership to express their identity to others and to ensure continuity of the self (Pierce et al., 2001). Organizational members that display psychological ownership may establish, maintain, reproduce, and transform their self-identity through interaction with tangible and intangible possessions (Avey et al., 2009). Based on the perspectives of Pierce et al. (2001) and Avey et al. (2009), this study defined image extension of the corporate brand as the desire for family, friends, and customers to feel that their image is consistent



with the image of a corporate brand.

### **2.4.3 Belonging to the Corporate Brand**

Pierce et al. (2001) argued that people tend to devote their energy and resources to tangible and intangible targets that may potentially become their own targets. Avey et al. (2009) regarded belonging in terms of psychological ownership as the feeling that an individual can be most understood within or belong to the organization. The root of psychological ownership may satisfy an employee's sense of belonging, thus causing the employees to express positive sentiments toward the organization (Van Dyne & Pierce, 2004). In agreement with Pierce et al. (2001), Van Dyne and Pierce (2004), and Avey et al. (2009), this study defined belonging to a corporate brand as a sense of feeling closely linked to the corporate brand, and thus expressing positive sentiments toward the image and personality of the corporate brand.

### **2.4.4 Accountability to the Corporate Brand**

When individuals demonstrate psychological ownership toward targets, a sense of responsibility may be triggered to protect and defend their ownership rights (Van Dyne & Pierce, 2004). Avey et al. (2009) regarded accountability as a source of psychological ownership that can make individuals exert responsibility for targets of ownership and regard these targets as an extension of the self. We argue that organizational members who demonstrate brand psychological ownership are accountable to the corporate brand. Extending from Van Dyne and Pierce (2004) and Avey et al. (2009), this study defined accountability to the corporate brand as the responsibility perceived by organizational members that cause them to implement the values of the corporate brand. Consequently, they defend the corporate brand when others criticize it, and they feel pleased when others praise it.

### **2.4.5 Identification with the Corporate Brand**

Specific targets that are classified as an extension of the self may become central to the self-identity of individuals, causing some people to define themselves by these targets (Belk, 1988; Avey et al., 2009). As argued by Hatch and Schulz (2003), the three components of corpo-



rate branding are strategic vision, organizational culture, and corporate images. These components make employees have congruent views and identify with the corporate brand. Based on Hatch and Schulz (2003) and Avey et al. (2009), this study defined identification with corporate brand as the concept whereby organizational members that demonstrate brand psychological ownership identify themselves with the strategic vision, beliefs, values, norms, and images of the corporate brand as proposed by senior managers.

### 3. Method

Based on the guideline of Hinkin (1998), this research aims to develop a scale of brand psychological ownership. The detailed steps of scale development include items development, item elimination and content validity, factor analysis, and validity examination. The contents of each step are described as follows.

#### 3.1 Step 1: Items Development

This study used in-depth interview to capture ideas from employees of franchise organization. There were ten employees who worked in the franchise interviewed, four males and six females. The age was distributed from 25 to 35 years and the average age was 32. The average tenure was 5 years.

In the process of in-depth interviews, this study first introduced the definition of brand psychological ownership to these employees and then asked them questions about the presence of brand psychological ownership within their companies. Questions of brand psychological ownership include “In your daily work, do you feel that the corporate brand is closely linked with you? Please express the reason specifically”, “Could you tell me whether you identify yourself with the corporate brand or not? Please explain why specifically”, “Do you feel that you can influence the value and image of the corporate brand? Please express the reasons specifically”, “Do you hope that other people feel your image is consistent with the brand image? Please give some examples”, “Do you feel you are responsible for the realization

of the brand value? Please give examples”, “Do you feel that you are highly related to brand-related activities?”, “Are you concerned about the results of brand-related activities?”.

Each in-depth interview of brand psychological ownership took between forty minutes to one and a half hours depending on the organizational complexity. In the process of the interview, each employee could freely express their opinions, which were recorded simultaneously and converted to transcripts. This study reviewed the transcripts and attempted to locate ideas that could be used as items in questionnaires. Next, these potential items were discussed with two thesis supervisors to ensure that the ideas match the definition of brand psychological ownership. After deleting the ideas that did not match the definition, the items were assembled into the questionnaire.

### **3.2 Step 2: Item Elimination and Content Validity**

Two stages of analysis were performed to understand the details of the content analysis. First, two professors and this author discussed all the generated items one by one to ensure that these items matched the definition of brand psychological ownership. Furthermore, items were refined according to the opinions of customer-service employees.

Second, three Ph.D. candidates from the department of Business Administration at the university in northern Taiwan were asked to categorize the items according the definitions. The results could (a) match (b) not match or (c) not categorize. Through this process we could ensure that the items were clear. If two of the three Ph.D. candidates could not match or could not categorize according to the definition of the dimension, the item would be deleted. No items were deleted according to expert opinions of brand psychological ownership. The inter-rater reliability of brand psychological ownership is 0.99. The measures of dimensions of brand psychological ownership are described as follows.

Measurement items of self-efficacy of corporate brand include: V1“I feel I have influence on the corporate brand”, V2“I feel I can successfully transmit values of the brand to my family and friends”,



V3“I feel that I can successfully transmit brand value in the process of interacting with customers”, V4“I feel that I can successfully relay customer feedback to the company”, and V5“I feel that I can successfully advise the company about brand-related thoughts”.

Measurement items of image extension of corporate brand include: V6“I hope that my image is consistent with the brand image”, V7“I hope that my family and friends feel that my image is consistent with the brand image”, and V8“I hope my customers feel that my service is consistent with the brand image”.

Measurement items of accountability to corporate brand include: V9“I feel that realizing values of corporate brand is my responsibility”, V10“When others criticize the corporate brand, I may solve the problem according to the sources of the problem”, V11“I defend the brand image when others criticize it”, and V12“I feel I am praised when the corporate brand is praised”.

Measurement items of belonging to corporate brand included: V13“I feel the corporate brand is like my brand”, V14“I feel that I am closely linked with the corporate brand”, V15“I like the corporate brand”, and V16“I like the image and personality of the corporate brand a lot”.

Measurement items of identification of corporate brand include: V17“I identify with the beliefs, values, and norms of the corporate brand”, V18“I identify with the vision of the corporate brand”, V19“I identify with activities related to the corporate brand”, and V20“I feel the success of the corporate brand is like my success”.

### 3.3 Step 3: Data Collection

The reason that this study has collected data concerning brand psychological ownership from customer-service employees is because in their daily job these employees interact with customers and are invaluable in transmitting the values of the corporate brand that are proposed by senior managers. Therefore, customer-service employees play an important role because their positive attitude and behavior can improve customer perception of the corporate brand and thus enhance

brand equity. Individual-level data collection was designed to capture perceptions of customer-service employees from franchise organizations in order to develop a scale of brand psychological ownership. Participants at the individual level were customer-service employees from 30 franchise organizations in Taiwan recruited through the Taiwan Chain Store and Franchise Association. This research first visited the senior manager or store manager in person to assess their willingness to participate. This was followed up by phone calls to confirm an organization's willingness to participate in the survey.

This study collected data over a four-month period (October, 2009~ January, 2010). In the first half of data collection (October, 2009~ November, 2009) was to conduct an exploratory factor analysis. There were 180 questionnaires returned of 200 questionnaires distributed and 178 were valid. This represented an effective response rate of 89 percent. Regarding the characteristics of the respondents, 44.9 percent were male and 55.1 percent were female; 63.5 percent were between the ages of 20 and 25 and 56.7 percent held a bachelor's degree. The second half of data collection (December, 2009 ~ January, 2010), was to conduct a confirmatory factor analyses. In this second-wave of data 190 questionnaires were returned of 220 questionnaires distributed. Of these 183 were valid; this represented an effective response rate of 83 percent. Regarding the characteristics of the respondents, 41.5 percent were male and 58.5 percent were female; 61.7 percent were between the ages of 20 and 25 and 67.2 percent held a bachelor's degree. Furthermore, the research assistants invited customers to fill out the questionnaire on brand equity; 1300 questionnaires were sent and 577 were returned which represented a response rate of 44.39%.

### **3.4 Step 4: Exploratory Factor Analyses**

This study first examined the dimensionality of brand psychological ownership by conducting a principle component analysis with orthogonal (VARIMAX) rotation using the first-group data. Five cross-loading items including V2, V6, V7, V8, and V12 were deleted (Conway & Huffcutt, 2003). This study then examined the dimension-



ality of brand psychological ownership with the remaining 15 items. The selection criteria was that the factor loading of these items was greater than 0.5. The KMO value was 0.931 and the Bartlett Sphericity Test was significant ( $p$ -value $<0.001$ ). As shown in Table 2, this study obtained 3 factors pertaining to brand psychological ownership including identification and belongingness of the brand, brand self-efficacy, and brand accountability. This explained 72.139 percent of the variance. Reliability testing was carried out on all the remaining items from the three isolated factors. As a test of reliability, Cronbach's alpha was used to determine internal consistency. The results showed that all values were 0.946, 0.841, and 0.79. Therefore we conclude that the items reliably measure the defined constructs and variables.

Table 2 EFA of brand psychological ownership (varimax rotation)

Items	Factor loading		
	Identification and belongingness of brand	Brand self-efficacy	Brand accountability
V20	0.822	0.172	0.231
V14	0.781	0.201	0.274
V17	0.771	0.196	0.309
V15	0.766	0.286	0.312
V16	0.763	0.167	0.352
V13	0.729	0.218	0.135
V19	0.722	0.300	0.240
V18	0.702	0.392	0.233
V5	0.365	0.822	-0.092
V4	0.143	0.718	0.400
V3	0.240	0.689	0.289
V1	0.204	0.681	0.264
V9	0.322	0.249	0.774
V10	0.343	0.339	0.712
V11	0.398	0.134	0.645
Variance %	35.325	19.33	17.484
Cumulative variance %	35.325	54.655	72.139
Cronbach's alpha	0.946	0.841	0.79

### **3.5 Step 5: Definitions and Measures of Dimensions**

After exploratory factor analyses, items of brand psychological ownership were divided into three factors including identification and belongingness of the brand, brand self-efficacy, and brand accountability. Definitions and measurement of these constructs are discussed as follows.

#### **3.5.1 Identification and Belongingness of the Brand (IBB)**

IBB is defined by this study as a sentiment whereby employees feel that they are closely linked to the corporate brand and thus produce favorable feelings toward corporate brand. This also involves identifying the strategic vision, beliefs, values, norms, and image of the corporate brand as proposed by senior managers. Items of identification and belongingness of the brand include V13, V14, V15, V16, V17, V18, V19, and V20.

#### **3.5.2 Brand Self-efficacy (BSE)**

This study defines brand self-efficacy as the situation where employees believe that they can successfully transmit the values of corporate brand to their family, friends, and customers. They also desire to successfully transmit customer feedback to the organization. Items of brand self-efficacy include V1, V3, V4, and V5.

#### **3.5.3 Brand Accountability (BA)**

Brand accountability is defined by this study as perceived responsibility where organizational members implement the values of the corporate brand. Such individuals will defend the corporate brand when others criticize it. Items of brand accountability include: V9, V10, and V11.

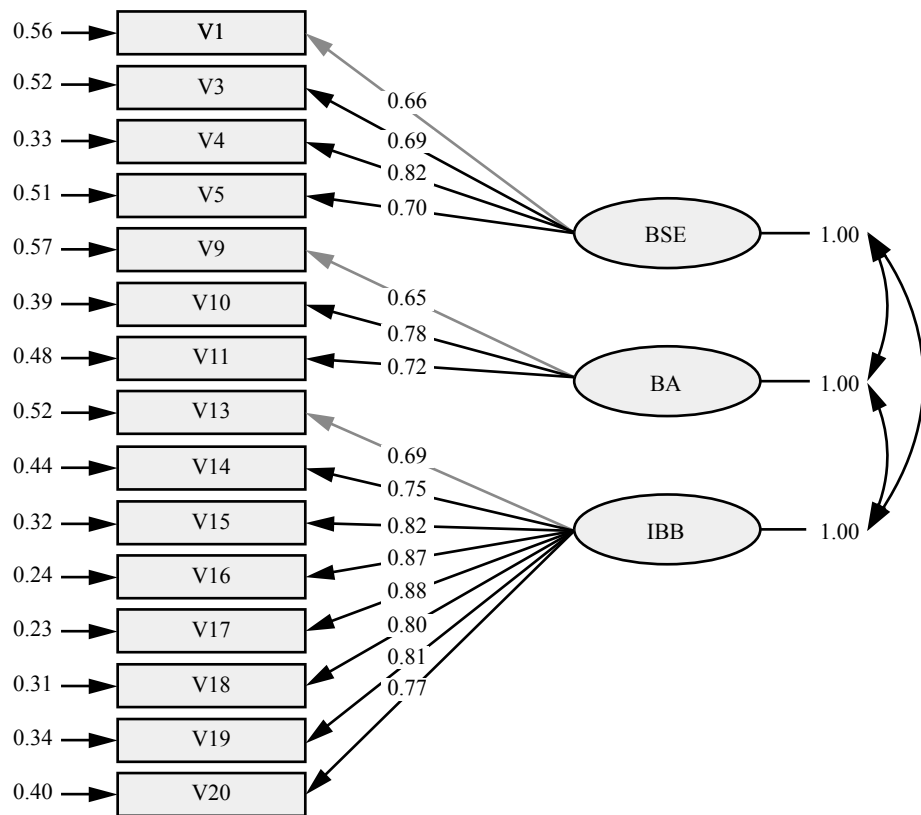
### **3.6 Step 6: Confirmatory Factor Analyses**

Confirmatory factor analysis was conducted to test the stability of the factors and measurement variables using the second data group. As for the confirmatory factor analyses of brand psychological ownership, analyses of proposed models and competing models was conducted



by this study. That is, fitness indices of a one-dimension model were adopted by this study to compare with indices of a three-dimension model. If the fitness indices of the three-dimension are better than the fitness indices of one-dimension, the three-dimension model can be regarded as the best scale to use for this study (Podsakoff, MacKenzie and Podsakoff, 2003).

The fitness indices include  $\chi^2/d.f.=2.46$ , AGFI=0.86, GFI=0.8, RMSR=0.053, CFI=0.97, NFI= 0.95, RMSEA=0.09 and demonstrate that the fitness of the model is good. Although the fitness indices show that the model fit is good, it is possible to obtain better fitness with other competing models. As shown in Table 3 and Figure1, the



Notes: BSE: brand self-efficacy  
 BA: brand accountability  
 IBB: identification and belongingness of brand

Figure 1 Measurement model of brand psychological ownership



fitness of the three-dimension model is better than the fitness of one-dimension model. This study obtained three dimensions through EFA and CFA thus demonstrating that the three-dimension model is best for the scale of brand psychological ownership. In view of the above, this study argues the three-dimension scale is the scale for brand psychological ownership and conducted validity testing.

Table 3 CFA of brand psychological ownership

Model	$\chi^2$	df	$\chi^2/df$	CFI	NFI	RMSEA	RMSR	GFI	AGFI
One-dimension Model	319.79	90	3.55	0.95	0.94	0.12	0.068	0.8	0.73
Three-dimension Model	214.41	87	2.46	0.97	0.95	0.09	0.053	0.86	0.8

### 3.6.1 Secondary CFA of Brand Psychological Ownership

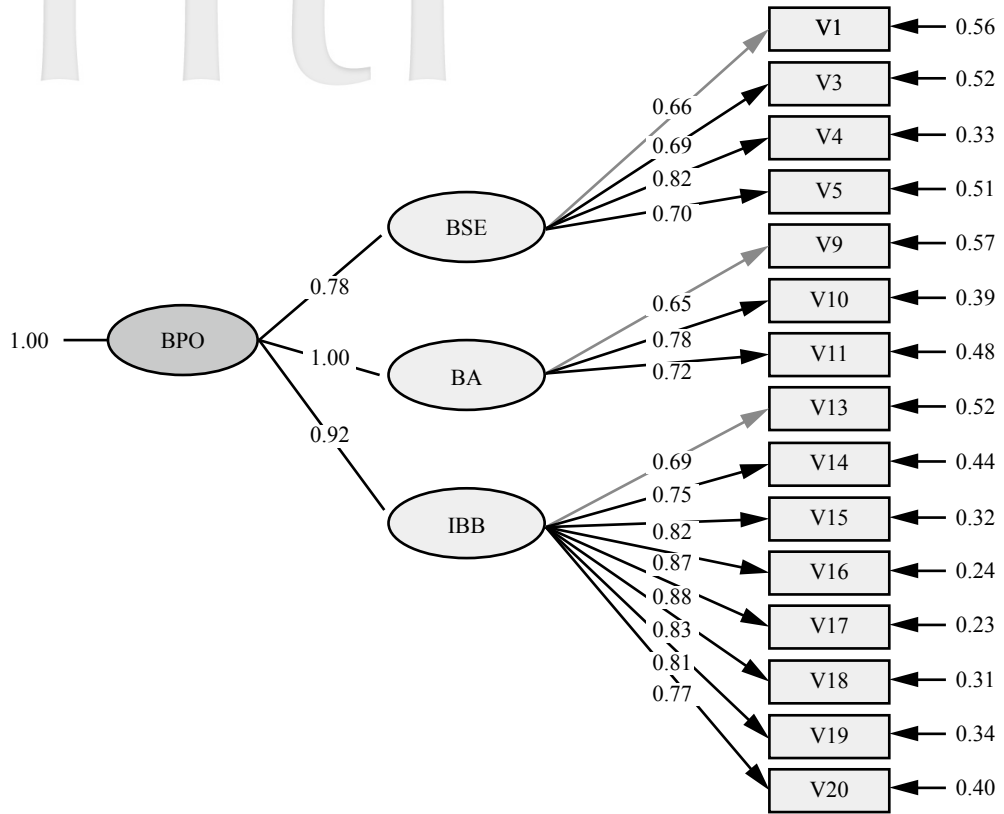
This research also conducted a secondary CFA for the scale of brand psychological ownership. The fitness indices of the secondary CFA of brand psychological ownership include  $\chi^2/d.f.=2.59$ ,  $GFI=0.86$ ,  $RMSR=0.053$ ,  $CFI=0.97$ ,  $NFI=0.95$ ,  $RMSEA=0.093$  and demonstrate that the fitness of the mode is great. As showed in Figure 2, most standardized  $\lambda$  of indicators are greater than 0.7 and the T value of each indicator reaches the significant level of 0.01 thus indicating that brand psychological ownership can be regarded as one coherent construct composed of three secondary level of latent constructs.

## 3.7 Step 7: Validity Examination

### 3.7.1 Discriminant and Convergence Validity

As for discriminate and convergent validity of brand psychological ownership, this study used the matrix phi to understand the extent to which a construct is truly distinct from other constructs. Standardized  $\lambda$  and T values were used by this study to determine the degree to which measures of the same concept are correlated.

Based on Jöreskog and Sörbom (1981), this study conducted discriminant validity and convergent validity. As reported in Table 4,



**Notes:** BPO: brand psychological ownership  
 BSE: brand self -efficacy  
 BA: brand accountability  
 IBB: identification and belongingness of brand

Figure 2 Secondary CFA of brand psychological ownership

the results demonstrated that discriminant validity exists among the dimensions because  $\text{PHI} + 1.96 * \text{standardized error}$  excludes 1. As showed in Table 5, most indicators have standardized  $\lambda$  that are greater than 0.7 and the T values of each indicator reach the significant level of 0.01, indicating that each dimension has convergent validity.

### 3.7.2 Brand Psychological Ownership, Organizational Psychological Ownership and Organizational Commitment

Extending from theoretical perspectives on psychological ownership (Pierce et al., 2001; Van Dyne & Pierce, 2004; Chi & Han, 2008;

Table 4 PHI, SE, and T in measurement model of brand psychological ownership

Factors	Brand self-efficacy	Brand accountability	Identification and belongingness of brand
Brand self-efficacy	0.44 <sup>a</sup> (0.10) <sup>b</sup> 4.55 <sup>c</sup>		
Brand accountability	0.34 (0.06) 5.28	0.43 (0.09) 4.54	
Identification and belongingness of brand	0.33 (0.06) 5.36	0.42 (0.07) 5.88	0.48 (0.09) 5.08

Note: <sup>a</sup> PHI, <sup>b</sup> Standardized Error, <sup>c</sup> T

Table 5 Standardized  $\lambda$  and T in measurement model of brand psychological ownership

Factor	indicator	Standardized $\lambda$	Standardized T
Brand self-efficacy	X1	0.66	NA
	X3	0.69	7.64
	X4	0.82	8.82
	X5	0.7	7.67
Brand accountability	X9	0.65	NA
	X10	0.78	8.6
	X11	0.72	8.06
Identification and belongingness of brand	X13	0.69	NA
	X14	0.75	9.24
	X15	0.82	10.13
	X16	0.87	10.67
	X17	0.88	10.77
	X18	0.83	10.19
	X19	0.81	9.98
	X20	0.77	9.54



Pierce et al., 2009; Avey et al., 2009), the scale of brand psychological ownership is developed. Therefore, this study has to investigate the discriminant and convergent validity of brand psychological ownership, organizational psychological ownership and organizational commitment. This study adopted the six items of organizational psychological ownership proposed by Van Dyne and Pierce (2004), which include OPO1, OPO2, OPO3, OPO4, OPO5, and OPO6. The contents of the six items of organizational psychological ownership are shown in Table 6. Furthermore, the four items of organizational commitment proposed by Meyer, Allen, and Smith (1993) are adopted by this research and include OC1, OC2, OC3, and OC4 in Table 7. Cronbach’s alpha for these items is 0.83.

Table 6 Items of organizational psychological ownership

Construct	Items
Organizational psychological ownership	OPO1: This is my organization.
	OPO2: I sense that this organization is our company.
	OPO3: I feel a very high degree of personal ownership for this organization.
	OPO4: I sense that this is my company.
	OPO5: This is our company.
	OPO6: Most of the people that work for this organization feel as though they own the company.

Source: Van Dyne et al. (2004)

Table 7 Items of organizational commitment

Construct	Items
Organizational commitment	OC1: I would be very happy to spend the rest of my career with this company.
	OC2: I really feel as if this company’s problems are my own.
	OC3: I feel a strong sense of “belonging” to my company.
	OC4: This company has a great deal of personal meaning for me.

Source: Meyer et al. (1993)

As reported in Table 8, the results demonstrate that discriminant validity exists with the items of brand psychological ownership, organizational psychological ownership, and organizational commitment because  $PHI \pm 1.96 * \text{standardized error}$  excludes 1. According to results in Table 9 and Figure 3, most indicators have standardized  $\lambda$  values that are greater than 0.7 and the T values of each indicator reach the significant level of 0.01 indicating that each construct of brand psychological ownership, organizational psychological ownership, and organizational commitment has convergent validity. Based on these results it is shown that brand psychological ownership is different from organizational psychological ownership and organizational commitment.

Table 8 PHI, SE, and T of measurement model of BPO, OPO and OC

Factors	Brand self-efficacy	Brand accountability	Identification and belongingness of brand	Organizational psychological ownership	Organizational commitment
Brand self-efficacy	0.57 <sup>a</sup> (0.08) <sup>b</sup> 7.25 <sup>c</sup>				
Brand accountability	0.39 (0.05) 7.34	0.46 (0.07) 6.21			
Identification and belongingness of brand	0.40 (0.05) 7.68	0.44 (0.06) 7.98	0.56 (0.07) 7.41		
Organizational psychological ownership	0.15 (0.03) 4.81	0.14 (0.03) 4.72	0.18 (0.03) 5.24	0.17 (0.05) 3.52	
Organizational commitment	0.32 (0.05) 6.53	0.25 (0.04) 5.96	0.33 (0.05) 6.96	0.26 (0.04) 5.76	0.62 (0.08) 7.82

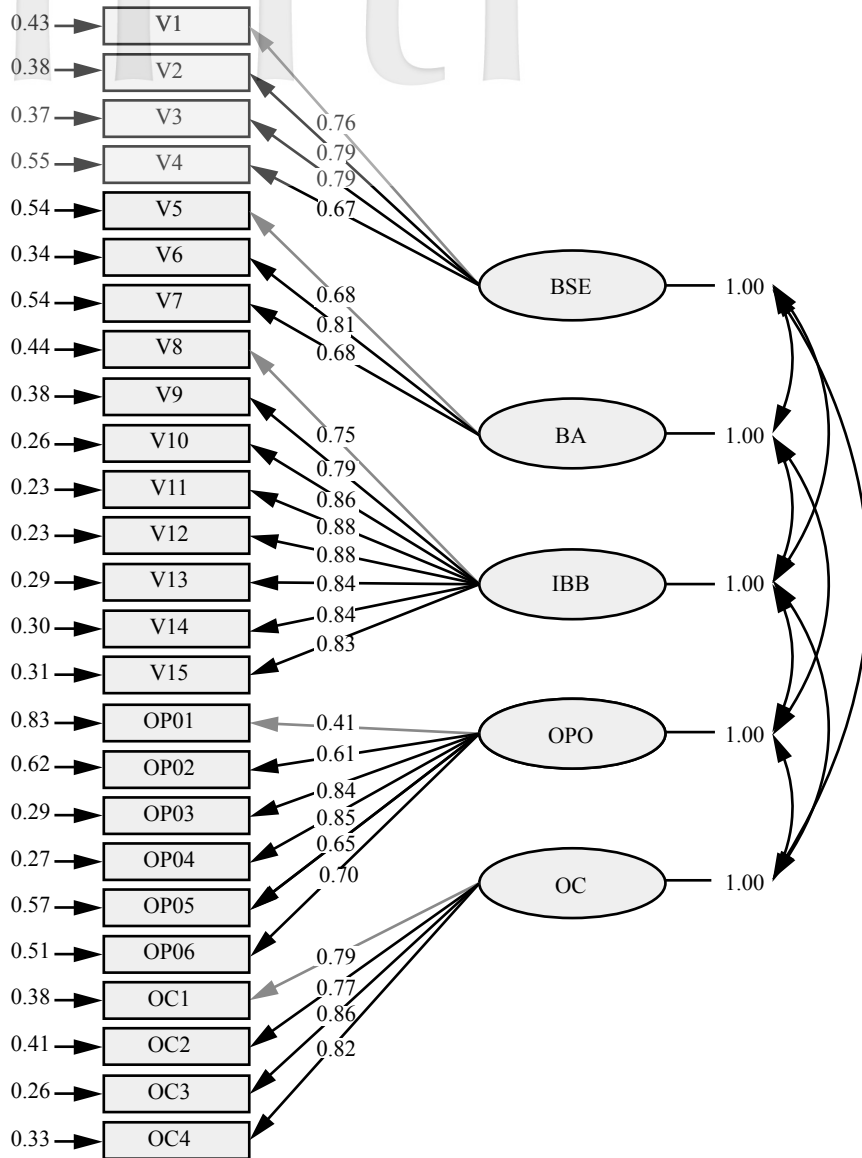
Note: <sup>a</sup> PHI , <sup>b</sup> Standardized Error , <sup>c</sup> T

Table 9 Standardized  $\lambda$  and T of measurement model of BPO, OPO and OC

Factor	indicator	Standardized $\lambda$	Standardized T
Brand self-efficacy	V1	0.76	NA
	V2	0.79	13.13
	V3	0.79	13.21
	V4	0.67	11.07
Brand accountability	V5	0.68	NA
	V6	0.81	11.87
	V7	0.68	10.21
Identification and belongingness of brand	V8	0.75	NA
	V9	0.79	14.04
	V10	0.86	15.54
	V11	0.88	15.89
	V12	0.88	15.93
	V13	0.84	15.16
	V14	0.84	15.13
	V15	0.83	14.97
Organizational psychological ownership	OPO1	0.41	NA
	OPO2	0.61	5.35
	OPO3	0.84	7.04
	OPO4	0.86	7.07
	OPO5	0.66	6.50
	OPO6	0.70	6.67
Organizational commitment	OC1	0.79	NA
	OC2	0.77	14.07
	OC3	0.85	16
	OC4	0.82	15.05

### 3.7.3 Nomological Validity

Nomological validity indicates the degree to which a developed scale can accurately predict other concepts according to a theoretical base (Hair et al., 2006). Based on these theoretical perspectives, we argued that brand psychological ownership is significantly related to brand equity. Extending from the theory of organizational psychological ownership, this research explained the relationship between brand



**Notes:** BSE: brand self-efficacy  
 BA: brand accountability  
 IBB: identification and belongingness of brand  
 OPO: organizational psychological ownership  
 OC: organizational commitment

Figure 3 Measurement model of BPO, OPO and OC



psychological ownership and brand equity. Based on analytical results, psychological ownership is an antecedent to organizational commitment (Van Dyne et al., 2004) and can evoke an altruistic spirit within employees (Podsakoff et al., 2000). This then contributes to organizational citizenship behavior. Burmann and Zeplin (2005) asserted that three aspects (i.e., brand-centered HRM, brand communication, and brand leadership) positively affect an employee's brand-related attitude (i.e., brand commitment), and thus contribute to brand citizenship behavior and greater brand strength. This also reveals that employees with positive brand attitude and cognition (i.e., brand commitment and brand psychological ownership) display brand citizenship behavior, which contributes to brand equity. From the empirical evidence, employees that demonstrate service-oriented citizenship behavior may adopt extra-role behavior beyond the formal requirements of their job, which contributes to brand equity (Sun et al., 2007). Building on the argument, this study investigated the relationship between brand psychological ownership and brand equity to prove nomological validity.

On the basis of Yoo and Donthu (2001), the scale of brand equity was adopted to measure brand equity. Measurement items of brand equity included "I consider myself to be loyal to the store brand," "The store brand would be my first choice," "I will not buy other brands if the store brand is available," "The likely quality of the store brand is extremely high," "The likelihood that the store brand would be functional is very high," "I can recognize the store brand among other competing brands," "I am aware of the store brand," "Some characteristics of the store brand come to my mind quickly," and "I can quickly recall the symbol or logo of the store brand." The Cronbach's alpha value for the scale was 0.9.

As reported in Table 10, brand psychological ownership was significantly related to brand equity ( $r = 0.353^{***}$ ,  $p < 0.05$ ). This study further investigated the relationship between brand psychological ownership and brand equity.



Table 10 Means, standard deviation, and correlation of brand psychological ownership and brand Equity

Variables	Mean	S.D.	(1)	(2)	(3)	(4)	(5)
(1) Brand psychological ownership	3.59	0.393	1				
(2) Brand equity	3.79	0.331	0.535***	1			
(3)Gender	1.59	0.208	0.203	0.063	1		
(4)Age	1.52	0.438	0.031	0.167	0.027	1	
(5)Education	2.58	0.436	-0.069	-0.02	0.201	-0.510***	1

\*\*\*P< 0.01, \*\* P<0.05, \*<0.1

### 3.7.4 Multilevel Examination

Based on the results shown in Table 11, brand psychological ownership positively affected brand equity (0.353\*\*\*), revealing that brand psychological ownership contributed to brand equity. The nomological validity was proven.

Table 11 Multilevel effect of brand psychological ownership on brand equity

Independent variable \ Dependent variable	Brand equity
Intercept	3.8***
Brand psychological ownership	0.353***
Gender	-0.109
Age	0.085
Education	0.097
R <sup>2</sup>	0.31
Deviance <sup>a</sup>	802.69

<sup>a</sup> Deviance is a measure of model fit. Deviance =-2\* log-likelihood of the full maximum-likelihood estimate.

\*\*\*P< 0.01, \*\* P<0.05, \*<0.1

Organizations n=31; Supervisors n=250; Customers n=577

### 3.7.5 Common Method Variance

According to Podsakoff et al. (2003), procedural remedies and statistical remedies were adopted in this research to reduce the errors associated with common method variance. With respect to procedural remedies, two methods were used in this study. First, the data from



brand psychological ownership and brand equity collected by this study were from various sources. Second, this study allowed the respondents to be anonymous and assured the respondents that they could answer the questions as honestly as possible. With respect to statistical remedies, this research adopted Harman's single factor test to prove the validity of testing. As shown in Table 3, the fitness of the three-dimensional model was superior to that of the one-dimensional model. The bias of common method variance was solved.

## 4. Discussion

### 4.1 Scale Development

In conjunction with various theoretical perspectives (Belk, 1988; Pierce et al., 2001; Hatch & Schulz, 2003; Van Dyne & Pierce, 2004; Avey et al., 2009), the five dimensions of brand psychological ownership used in this study were the self-efficacy of the corporate brand, image extension of the corporate brand, belongingness to the corporate brand, accountability to the corporate brand, and identification with the corporate brand. Content validity was further tested using the professional advice of experts, including two professors and three Ph.D. candidates. The data collection concerning corporate branding was conducted in a two-wave process. The first-wave of data was collected to conduct exploratory factor analyses. The second-wave of data was used to conduct confirmatory factor analyses.

After exploratory factor analyses and confirmatory factor analyses, three dimensions of brand psychological ownership emerged from this study: brand self-efficacy, brand accountability, and identification and belongingness to the brand. Based on secondary CFA, brand psychological ownership can be regarded as one coherent construct composed of three latent constructs. This study further revealed that discriminant validity and convergent validity existed among the dimensions of brand psychological ownership. The relationship between brand psychological ownership and brand equity was therefore investigated to prove nomological validity.

## 4.2 The Comparison between Psychological Ownership and Brand Psychological Ownership

This study compared the dimensions of brand psychological ownership with the dimensions of organizational psychological ownership. The four dimensions of organizational psychological ownership proposed by Avey et al. (2009) are self-efficacy, accountability, belongingness, and self-identity. Self-efficacy refers to an employee’s belief that they can successfully implement a specific task assigned by an organization (Avey et al., 2009). Accountability refers to the implicit or explicit expectation that organizational members may be called on to justify their beliefs, feelings, and actions toward others (Lerner & Tetlock, 1999; Avey et al., 2009). Belongingness refers to the basic human need for places where they can be most understood and feel that they belong to the organization (Pierce et al., 2001; Avey et al., 2009). Self-identity refers to the component of psychological ownership that causes organizational members to establish, maintain, reproduce, and transform their self-identity through interaction with tangible and intangible possessions (Pierce et al. 2001; Avey et al., 2009). Compared with the dimensions of organizational psychological ownership proposed by Avey et al. (2009), which emphasize organizational objects, the three dimensions of brand psychological ownership obtained by this study emphasized the corporate brand. The dimensions of psychological ownership and brand psychological ownership are presented in Table 12.

Table 12 Dimensions of psychological ownership and brand psychological ownership

Constructs	Dimensions or traits	Sources
Psychological ownership	Four dimensions include self-efficacy, accountability, belongingness, and self-identity.	Avey et al. (2009)
Brand psychological ownership	Three dimensions include brand self-efficacy, brand accountability, and identification and belongingness of brand	This research

Source: this research



### 4.3 Brand Psychological Ownership in Diversified Branding Strategies

Brand psychological ownership is regarded as the state where organizational members feel a level of ownership toward the brand. Based on the practical phenomenon, brand psychological ownership may target various objects, and then justify various branding strategies in various firms. Diverse branding strategies could be applied in various firms, such as focusing on a corporate brand or on product brands. For product branding strategies, the firm may adopt a single (family) brand or multiple brands. The brands may be owned by the firm or may be licensed from other organizations. Therefore, the targets of brand psychological ownership can be the corporate brand, product brands, a single brand, multiple brands, or a licensed brand. Managers of franchise organizations (e.g., Burger King) adopt corporate branding strategies because the corporate brand is a crucial asset that can enhance brand equity. For firms that operate with licensed brands, they typically use the brand as the corporate name. Therefore, customer-service employees who work in this type of franchise organization can demonstrate brand psychological ownership toward the corporate brand. Customer-service employees who demonstrate brand psychological ownership feel a sense of ownership toward the corporate brand, and thus display brand citizenship behavior that contributes to brand equity. For organizations that do not emphasize branding strategies, brand psychological ownership is embedded in organizational psychological ownership. Employees who work in this type of organization may display organizational psychological ownership, but no distinct brand psychological ownership can be observed.

### 4.4 The Application of the Scale of Brand Psychological Ownership

The applications of the scale of brand psychological ownership are discussed as follows. First, the scale of brand psychological ownership can assist an organization in understanding the degree to which its employees demonstrate brand psychological ownership that contributes to their desire to excel in their work, thus enhancing brand equity.

Second, it is a useful source for an organization to use in understanding the performance of each dimension of brand psychological ownership. Therefore, an organization can learn how to improve practices of corporate branding. Third, the result of measuring brand psychological ownership helps brand managers to understand what types of employee can be brand leaders. Fourth, dimensions of brand psychological ownership can be used as guidelines that are followed by brand managers in an organization that expects employees to have brand psychological ownership. Fifth, the scale of brand psychological ownership can be applied to all types of franchise organization that regard brand equity as a crucial asset. Sixth, the scale of brand psychological ownership can serve as a reference material in the process of developing brand-centered HRM.

#### **4.5 Limitations and Future Studies**

Several limitations of this study should be noted. First, the data were collected from 30 franchise organizations and were not randomly selected from Taiwanese markets. Future studies could collect data by using a random sample. Second, this study collected data from food-and-drink franchise organizations in Taiwan, and thus the generalizability of the research results may be limited. Future studies could endeavor to collect data from various industries to further examine these differences. Third, this study collected data concerning brand psychological ownership from the perspective of customer-service employees. Future studies could collect data from immediate managers and employees to reveal differences between them. Fourth, this study developed a scale of brand psychological ownership extending from the perspectives of organizational psychological ownership. Future studies could enhance the comprehensiveness of brand psychological ownership through other perspectives, including brand loyalty. Fifth, brand equity was used to prove nomological validity. Future studies could examine nomological validity with additional constructs, including brand commitment and brand citizenship behavior.



## Reference

- [1] Avey, J. B., B. J. Avolio, C. D. Crossley & F. Luthans. (2009). Psychological Ownership: Theoretical Extensions, Measurement and Relation to Work Outcome. *Journal of Organizational Behavior*, 30, 173-191.
- [2] Belk, R. W. (1988). Possessions and the Extended Self. *Consumer Research*, 15, 139-168.
- [3] Burmann, C., & S. Zeplin (2005). Building Brand Commitment: A Behavioral Approach to Internal Brand Management. *The Journal of Brand Management*, 12, 279-300.
- [4] Chi, N. W., & T. S. Han (2008). Exploring the Linkages Between Formal Ownership and Psychological Ownership for the Organization: The Mediating Role of Organizational Justice. *Journal of Occupational and Organizational Psychology*, 81, 691-711.
- [5] Conway, J. M., & A. Huffcutt I. (2003). A Review and Evaluation of Exploratory Factor Analysis Practices in Organizational Research. *Organizational Research Methods*, 6, 147-168.
- [6] Dittmar, H. (1992). *The Social Psychology of Material Possessions: To Have is to be*, New York: St. Martin's Press.
- [7] Ehrlich, J. J., & D. B. Graeven (1971). Reciprocal Self-disclosure in a Dyad. *Journal of Experimental Social Psychology*, 7, 389-400.
- [8] Furby, L. (1978). Possession in Humans: An Exploratory Study of its Meaning and Motivation. *Social Behavior and Personality*, 6, 49-65.
- [9] Hair, J., W. Black, B. Babin, R. Anderson, & R. Tatham (2006). *Multivariate Analysis Sixth Edition*. Upper Saddle River, NJ: Prentice-Hall.
- [10] Hatch, M. J., & M. Schulz (2003). Bring the Corporation Into Corporate Branding. *European Journal of Marketing*, 37, 1041-1064.
- [11] Hinkin, T. R. (1998). A Brief Tutorial on the Development of Measures for Use in Survey Questionnaires. *Organizational Research Methods*, 1, 104-121.

- airiti
- [12] Jöreskog, K. G., & D. Sörbom (1981). *LISREL V: Analysis of Linear Structure Relationship by the Method of Maximum Likelihood*. Chicago: National Educational Resources.
- [13] Lerner, J. S., & P. E. Tetlock (1999). Accounting for the Effects of Accountability. *Psychological Bulletin*, *125*, 255-275.
- [14] Masterson, S. S., & C. L. Stamper (2003). Perceived Organizational Membership: An Aggregate Framework Representing the Employee-organization Relationship. *Journal of Organizational Behavior*, *24*, 473-490.
- [15] McMillan, D. W., & D. M. Chavis (1986). Sense of Community: A Definition and Theory. *Journal of Community Psychology*, *14*, 6-23.
- [16] Meyer, J. P., N. J. Allen, & C. A. Smith (1993). Commitment to Organizations and Occupations: Extension and Test of a Three-component Conceptualization. *Journal of Applied Psychology*, *78*, 538-551.
- [17] Mowday, R. T., R. M. Steers, & L. P. Porter (1979). The Measurement of Organizational Commitment. *Journal of Vocational Behavior*, *14*, 224-47.
- [18] Nuttin, J. M. Jr. (1987). Affective Consequences of Mere Ownership: The Name Letter Effect in Twelve European Languages. *European Journal of Social Psychology*, *17*, 381-402.
- [19] Pierce J. L., I. Jussila, & A. Cummings (2009). Psychological Ownership Within the Job Design Context: Revision of the Job Characteristics Model. *Journal of Organizational Behavior*, *30*, 477-496.
- [20] Pierce, J. L., T. Kostova, & K. Dirks T. (2001). Toward a Theory of Psychological Ownership in Organizations. *Academy of Management Review*, *26*, 298-310.
- [21] Pierce, J. L., S. A. Rubenfeld, & S. Morgan (1991). Employee Ownership: A Conceptual Model of Process and Effects. *Academy of Management Review*, *16*, 121-144.
- [22] Podsakoff, P. M., S. B. MacKenzie, J. B. Paine, & D. G. Bachrach (2000). Organizational Citizenship Behaviors: A Critical Review



of the Theoretical and Empirical Literature and Suggestions for Future Research. *Journal of Management*, 26, 513-563.

- [23] Podsakoff, P. M., S. B. MacKenzie, & N. P. Podsakoff (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88, 879-903.
- [24] Rousseau, D. M. (1989). Psychological and Implied Contracts in Organizations. *Employee Rights and Responsibilities Journal*, 2, 121-139.
- [25] Souiden, N., N. M. Kassim, & H. J. Hong (2006). The Effects of Corporate Branding Dimensions on Consumers' Product Evaluation. *European Journal of Marketing*, 40, 825-845.
- [26] Sun, L. Y., S. Aryee, & K. S. Law (2007). High-performance Human Resource Practices, Citizenship Behavior, and Organizational Performance: A Relational Perspective. *Academy of Management Journal*, 50, 558-577.
- [27] Vande Walle, D., L. Van Dyne, & T. Kostova (1995). Psychological Ownership: An Empirical Examination of its Consequences. *Group and Organization Management*, 20, 210-226.
- [28] Van Dyne, L., & J. L. Pierce (2004). Psychological Ownership and Feeling of Possession: Three Field Studies Predicting Employee Attitudes and Organizational Citizenship Behavior. *Journal of Organizational Behavior*, 25, 439-459.
- [29] Wagner, S. H., P. C. Parker, & N. D. Christiansen (2003). Employees that Think and Act like Owners: Effects of Ownership Beliefs and Behaviors on Organizational Effectiveness. *Personnel Psychology*, 56, 847-871.
- [30] Yoo, B., & N. Donthu (2001). Developing and Validating a Multidimensional Consumer-based Brand Equity Scale. *Journal of Business Research*, 52, 1-14.

## 作者簡介

江旭新 (Hsu-Hsin Chiang) 國立政治大學企業管理博士，目前為國立新竹教育大學人力資源與數位學習科技研究所助理教授，研究興趣包括品牌人力資源管理、品牌心理擁有感、品牌公民行



為、品牌契合、品牌承諾、知識創新等，曾發表論文於 European Journal of Marketing, International Journal of Manpower, International Journal of Human Resource Management, Journal of General Management, 管理評論等期刊。

張愛華 (Ai-Hwa Chang) 美國伊利諾大學企業管理博士，目前為國立政治大學企業管理學系教授，研究興趣包括行銷策略、行銷研究、電子商務、科技行銷等，曾發表論文於 European Journal of Marketing, International Journal of Human Resource Management, Journal of General Management, 電子商務學報。

韓志翔 (Tzu-Shian Han) 美國明尼蘇達大學人力資源管理學博士，目前為國立政治大學企業管理學系教授，研究興趣包括人力資源管理、工業關係、組織理論，曾發表論文於 Journal of Occupational and Organizational Psychology, European Journal of Marketing, International Journal of Manpower, International Journal of Human Resource Management, Journal of General Management, 管理評論等期刊。