Corporate branding, brand psychological ownership and brand citizenship behaviour: multilevel analysis and managerial implications

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Brand psychological ownership can be defined as a psychological experience producing positive brand attitudes and brand cognitions, such as a feeling of ownership towards a brand, and altruistic spirit towards brand-related activities. Building on, and extending the work of Chang, Chiang and Han (2012), this paper investigates the antecedents and consequences of brand psychological ownership. A multilevel approach is taken to investigate the relationship between three major constructs related to branding efforts: brand psychological ownership, corporate branding and brand citizenship behaviour. In the individual analysis, brand psychological ownership was found to have a positive effect on brand citizenship behaviour. In the multilevel analyses the results show that corporate branding has a positive effect on brand psychological ownership and brand citizenship behaviour. As a result, leaders and general managers can use corporate brand building as a tool for employee motivation and even cultural change. Organisational-level brand citizenship behaviour is found to positively affect brand equity. Furthermore, brand psychological ownership mediated the relationship between corporate branding and brand citizenship behaviour in the multilevel relationship. The paper discusses these findings, their contribution to current literature and their implications for future research and management development.

Introduction

Scholars of organisational theory report that psychological ownership (PO) is a cognitive-affective construct that helps to explain why members of an organisation demonstrate a positive attitude and altruistic behaviour with respect to the organisation (Pierce *et al.*, 2009; Van Dyne and Pierce, 2004). The object (target) of PO feelings could be a wide range of factors associated with the organisation, tangible and/or intangible. Employees may feel PO over the organisation as a whole, their job, ideas, relationships, or physical objects. Studies to date have, typically, focused on the organisation or job as the target of PO. It was acknowledged by Pierce *et al.* (2003: 94) that 'there does not appear to be a theory of ownership targets, nor is there widespread acceptance of a particular classification scheme of ownership targets'. In order to advance understanding of how PO can be experienced at work, and be utilised effectively to enhance employee motivation, attitudes (and behaviours), the literature is in need of contributions exploring a wider range of targets. One variation, and the focus of this study, is brand PO. Building on perspectives detailed in earlier studies of PO (Pierce *et al.*, 2009; Avey *et al.*, 2009; Chang *et al.*, 2012), brand psychological ownership is defined as the state in which organisation members feel ownership and possessive experiences toward the corporate brand. Balmer (2001) and Hatch and Schulz (2003) explain that corporate branding can be regarded as the organisational practice that builds favourable cognition and affection toward the corporate brand amongst its multiple stakeholders. Therefore, it is of significance for general managers in organisational culture and strategic change initiatives. Corporate branding practices include: transmitting the brand vision, culture and image (Hatch and Schulz, 2003), demonstrating brand-centred leadership (Knox and Bickerton, 2003; Kay, 2006; Vallaster and de Chernatony, 2006), interacting with multiple stakeholders (Leitch and Richardson, 2001), facilitating a pro-brand departmental coordination (Harris and de Chernatony, 2001; Hatch and Schulz, 2003), and human resource (HR) practices and communication (Burmann and Zeplin, 2005; Martin *et al.*, 2005), all of which can affect the cognitive-affective sentiments of employees. In parallel with Mayhew *et al.* (2007), who argue that organisational characteristics (e.g. vision, culture, leadership, policies, procedures, and reputation) may influence employee's organisational PO, it is argued here that an organisation can utilise interactive practices of corporate branding to induce their employees to develop positive cognitive-affective associations towards the corporate brand, thus producing brand PO. Whilst this article asserts that practices of corporate branding may be antecedents to brand PO, the literature says very little about the relationship between corporate branding and brand PO, revealing a critical research gap.

Brand citizenship behaviour (CB) represents employees' brand altruistic spirit, the way they 'live' the brand, and display brand-related voluntary behaviour, which contributes to customer satisfaction and brand strength (Burmann *et al.*, 2005; Chang *et al.*, 2012). With reference to Burmann *et al.* (2009) and Chang *et al.* (2012), we propose that employees who demonstrate brand PO also display brand CB which, in turn, contributes to customer

satisfaction. It is proposed here that brand CB may emerge as a consequence of brand PO. Furthermore, brand CBs may, according to some scholars, induce employees not only to act as sellers but also to show more empathy which increases brand strength (Burmann and Zeplin, 2005). That is, brand CB may contribute to customer-based brand equity. However, the multiple relationships among corporate branding, brand PO, brand CB and customer-based brand equity need further exploration. A key research objective of this study is to fill this knowledge gap. This paper builds on and extends Chang *et al.*'s (2012) work and investigates the interactive practices that foster employee brand PO and its effects on employee brand behaviour and brand equity. In contrast to Chang *et al.* (2012), which focused on the connections between brand-centred human resource management (the critical point being internal branding) and employees' brand PO and brand CB, this paper will focus on the connections between corporate branding (the critical point being the interactive process of internal and external stakeholders) and employees' brand PO and brand CB. In terms of customer outcomes, Chang *et al.* (2012) explored the relationship between organisation-level brand CB and customer satisfaction. This study instead explores effects on customer-based brand equity. In contrast to customer satisfaction (Fornell *et al.*, 1996), which includes one dimension; customer-based brand equity (Yoo *et al.*, 2001) in our study includes three dimensions, indicating more comprehensive metrics. We analyse data collected from middle managers, customer-contact employees and customers. We work within the paradigms of social identity theory and social exchange theory (Aseleage and Eisenberger, 2003; Allen *et al.*, 2003; Flynn, 2005; Hogg and Terry, 2000; Stets and Burke, 2000) and use hierarchical linear modeling (HLM) to investigate the relationships among corporate branding, brand PO, brand CB, and customer-based brand equity. All hypothesis examinations are conducted via multilevel analyses. We then go on to make suggestions for practicing managers based on the research findings.

Literature review and hypotheses development

Social identity theory, social exchange theory and corporate branding

Social identity theory is described as 'a platform from which to describe in detail how social categorisation and prototype-based depersonalization produces social identity phenomena' (Hogg and Terry, 2000). Ashforth and Mael (1989) argue that social identity leads individuals to experience a sense of belongingness to some human aggregate. According to some scholars (Hirst *et al.*, 2009; Meyer *et al.*, 2006), social identity theory highlights how collective identification affects the cognitive awareness of membership within an organisation, including employee commitment and organisational goals. As Van Knippenberg and Hogg (2003) argue, interpersonal relationships delineate an employee's personal identity and personal self; and the collective attributes of an organisation delineate an employee's social identity and collective self. Employees with high social identity may have a greater commitment to activities that are congruent with the identity of the organ-

isation (Ashforth and Mael, 1989).

Social exchange theory (see Blau, 1964; Homans, 1961) highlights the importance of the relationship between an organisation and its employees on the overall functioning of the organisation (Eisenberger, *et al.*, 1986) including the achievement of organisational goals and employee motivation (Aseleage and Eisenberger, 2003). Loyalty, respect, and a high level of mutual trust can lead to high-quality social exchanges (Chen and Klimoski, 2003). Long term, positive and interactive relationships between the organisation and employees (which can contribute to organisational performance) can establish when employees are more inclined to build exchange relationships with the organisation and other employees (Molm and Cook, 1995). Molm and Cook (1995) posit that employees will be more inclined to build these relationships when they feel that the reciprocal exchange of mutual benefits is possible. As various scholars argue, corporate branding is regarded as the processes of maintaining a favourable corporate reputation and enhancing brand value (Muzellec and Lambkin, 2006), which includes vision, culture, image alignment (Harris and de Chernatony, 2001), brand leadership (Vallaster and de Chernatony, 2006), interaction with multiple stakeholders (Leitch and Richardson, 2003), departmental coordination (de Chernatony, 1999), brand-centred HR practices (Martin *et al.*, 2005; Burmann and Zeplin, 2005), and communication (Balmer, 2001). In the process of corporate branding, employees who identify with the corporate brand will experience a sense of 'belonging' with regard to the brand. The needs of employees are satisfied through exchange relationships, and employees produce positive brand-related cognition and behaviour, such as brand PO and brand CB.

Brand psychological ownership and brand citizenship behaviour

Research evidence from previous studies suggests that PO facilitates an employee's positive attitude (i.e. responsibility, altruism, etc.) toward various targets (i.e., organisation, brand, etc.), thus helping employees to identify self-existence and self-meaning (Van Dyne and Pierce, 2004). Van Dyne and Pierce (2004) find that PO is an antecedent to organisational commitment, which can evoke an altruistic spirit (Podsakoff *et al.*, 2000) and then contribute to organisational CB. Extending previous work on PO within the organisational setting (Van Dyne and Pierce, 2004; Pierce *et al.*, 2001), this paper proposes that brand PO can produce favourable feelings toward the corporate brand as employees feel that they are effective in brand-related activities, thus, identifying themselves with the corporate brand. Van Dyne and Pierce (2004) showed that three characteristics of PO (self-efficacy, identification and belongingness, and accountability) induce employees to embody a positive attitude with respect to the target (in the present study we explore the corporate brand as a target); regarding the target as an extension of themselves; becoming willing to defend the target. Extending previous arguments (Eisenberger *et al.*, 1986; Pierce *et al.*, 2001; Van Dyne and Pierce, 2004), it is plausible that these traits may induce employees to express an altruistic spirit. Social exchange theory and self-identity perspectives, according to Avey *et al.* (2009), can help explain the development of PO. Following the assertions of

Van Dyne *et al.* (2004) and Pierce *et al.* (2001), it is argued here that the roots of brand PO lead employees to develop favourable feelings towards the corporate brand, to feel they are effective in brand-related activities, and to identify themselves with the corporate brand. Employees who develop brand PO due to brand identification or by satisfying exchange relations may consequently demonstrate brand CBs. This article builds on the work of Chang *et al.'s* (2012) study, drawing on social exchange theory and social identity theory, and exploring the hypotheses in a different industry setting, using data collected in 2009–10 from food and drink franchise organisations. The first hypothesis is as follows:

> **H1: Brand psychological ownership has a positive effect on brand citizenship behaviour**

Corporate branding and brand psychological ownership

Corporate branding is regarded as a tool implemented by an organisation to transmit vision, beliefs, values and organisational norms to employees, thus transforming employee cognitions (Hatch and Schulz, 2003). That is, the practices of corporate branding (e.g., brand leadership, brand communication, brand-centred HRM, etc.) help employees develop positive brand cognition and brand attitudes. Brand-oriented leadership may contribute to a brand-centred vision that influences employees' personal values and induces their self-interests congruent with the values of the corporate brand (Burmann and Zeplin, 2005). Through interactive leadership processes (Harris and de Chernatony, 2001), employees feel effective in brand-related activities and devote themselves to the corporate brand. According to some scholars, effective communication is an antecedent of organisational identification (Smidts *et al.*, 2001), and employees with strong organisational identification are more willing to express a supportive attitude and make decisions consistent with organisational goals (Smidts *et al.*, 2001). That is, strategic brand communication can be adopted by an organisation in order to transform employee cognition and thus produce brand PO. It has been argued (Hatch and Schulz, 2003; Balmer, 2001) that successful corporate branding is inextricably linked to the integrated efforts of organisational resources (e.g., marketing and HR), which contribute to matching employee perceptions with those of the corporate brand. Brand-centred HRM contributes to the internalisation of brand identity (Burmann and Zeplin, 2005) and the implementation of brand strategies (Aurand *et al.*, 2005). Employees may therefore develop, and demonstrate, brand PO as a consequence of brand-centred HR practices such as training, selection, rewards, development and evaluation of the corporate brand. Based on social exchange theory and social identity theory (Allen *et al.*, 2003; Masterson and Stamper, 2003; Whitener, 2001), employees who are satisfied with the organisation's supportive practices feel effective during brand-related activities, identify with the corporate brand and form mental contracts which inspire them to defend the brand value. With regard to corporate branding, an organisation may transmit brand values toward employees through the interactive processes (Harris *et al.*, 2001), causing employees to experience brand psychological ownership. The corpo-

rate brand helps an organisation to recruit employees who have a psychological connection with the brand (Kim *et al.*, 2010) and participate in brand-related activities actively. Chang *et al.* (2012) focused heavily on internal branding and found that brand-centred HRM positively contributed to brand PO.

The intent of this article is to explore a different relationship, utilising multiple interactive concepts (i.e. corporate branding) to examine the multi-level relationship. In contrast to Chang *et al.* (2012), this paper proposes that corporate branding contributes to brand PO. This study argues that corporate branding can be useful as an aggregated construct that is positively associated with brand PO. The second hypothesis is:

H2: Corporate branding has a positive effect on brand psychological ownership

Corporate branding and brand citizenship behaviour

As previously argued in the research literature (Burmann and Zeplin, 2005; Hatch and Schulz, 2003; Piccolo and Coiquitt, 2006), practices of corporate branding have been found to affect employee behaviour. A range of perspectives can be found in the literature which help to explain this. For example, Bartels *et al.* (2007) demonstrated that brand communication fosters an emotional appeal which contributes to brand identity (Burmann and Zeplin, 2005). Employees with strong organisational identity are suggested to be more willing to demonstrate a supportive attitude towards organisational goals (Smidts *et al.*, 2001). Effective leadership is also believed to have positive effects on employee behaviour (Piccolo and Coiquitt, 2006). Through effective leadership, Avey *et al.* (2009) argue that employees disregard their gains to achieve the leader's vision, which is suggested to be an expression of self-identity. That is, employees who perceive organisational support and leaders' inspiration may display an altruistic spirit and positive behaviours, known as organisational CB (Eisenberger *et al.*, 1986; Podsakoff *et al.*, 2000; Chang *et al.*, 2012). In a related study, Chang *et al.* (2012) found that brand-centred HRM positively affects brand CB.

As with Hypothesis 2, in contrast to Chang *et al.* (2012), multiple interactive concepts (i.e., corporate branding) are utilised to examine the multilevel relationship, placing an emphasis on corporate branding. Hatch and Schulz (2003) assert that the integrated efforts of HRM, communication and marketing departments contribute to the success of corporate branding. Employees who gain integrated internal and external efforts (i.e., corporate branding) exhibit brand CB to reciprocate the corporate brand (Flynn, 2005). Empirical evidence (Kim *et al.*, 2010) has shown that practices of corporate branding (e.g., CSR initiatives) increase employee–corporate identification, which then influences employees' commitment, contributing to employee brand behaviour. Therefore, corporate branding can be useful as an aggregated construct and may relate positively to brand CB. Hypothesis three is as follows:

H3: Corporate branding has a positive effect on brand citizenship behaviour

Organisation-level brand citizenship behaviour and brand equity

Brand CB refers to an employee's voluntary brand behaviour (Burmann and Zeplin, 2005). Employees who demonstrate brand CB may express brand-oriented behaviour beyond the formal requirements of their job; this contributes to brand equity as brand image is improved through the service provided by its employees (Sun *et al.*, 2007). According to Keller and Lehmann (2001), brand equity can be assessed from customer-based sources that measure customer attachment, association, awareness, attitude, and loyalty (Ailawadi *et al.*, 2003). Netemeyer *et al.* (2004) argue that the perceived quality, perceived value, and the uniqueness associated with the brand can induce customers to pay a premium price, thus enhancing brand equity. We argue that customers who have a positive perception of the brand are less sensitive to price increases (Ailawadi *et al.*, 2003), thus, enhancing the competitive advantage of the brand (Yoo and Donthu, 2001). Based on social exchange theory, organisational practices that induce employees to perceive organisational support may also cause employees to demonstrate positive behaviour (Eisenberger *et al.*, 1990). Social identity theory suggests that employees who identify the organisational goals (i.e., corporate brand) may have a level of commitment (Hirst *et al.*, 2009) which induces employees to display positive behaviours, such as brand CB. Brand CB is considered not only as one part of organisational citizenship behaviour, but also the externally targeted behaviour which contributes to perceptions of external stakeholders (Burmann and Zeplin, 2005). Whereas Chang *et al.* (2012) explored the connections between brand CB and customer satisfaction, this study considers the effect on brand equity. Paraphrasing Srivastava and Shocker (1991), Yoo and Donthu (2001: 2) state that 'one important consensus among the definitions is that brand equity is the incremental value of a product due to the brand name'. Collective employee brand CB, termed as organisation-level brand CB, arguably has the capacity to affect customers' brand equity. A fourth hypothesis is proposed:

> **H4: Organisation-level brand citizenship behaviour affects customer-based brand equity positively**

Mediating role of brand psychological ownership

Based on the inferences made in H1-H3, the authors propose a correlation between corporate branding, brand PO and brand CB. Current theories of PO suggest that feelings of PO can emerge when employees are provided with three fundamental rights as part of their job role: the right to possess some share of the owned object's financial value, the right to affect the owned object, and the right to obtain information about the owned object (Pierce *et al.*, 1991; Chi and Han, 2008). This is expanded in order to contend that an organisation can provide employees with the right to acquire information regarding the corporate brand through brand communication, the right to participate in brand-related decision-making through interaction with internal stakeholders and departmental coordination, and the right to share profits through sophisticated HR practices. It is therefore proposed that brand PO may occur

via practices of corporate branding. Furthermore, research evidence has also shown how PO can evoke an altruistic spirit within employees, and lead to positive changes in organisational CB (Podsakoff *et al.*, 2000; Van Dyne and Pierce, 2004). It is suggested that brand PO contributes to brand CB. Employees who identify with the corporate brand may display brand PO and thus produce brand CB contributing to brand equity. It is therefore proposed that brand PO mediates the relationship between corporate branding and brand CB.

H5: Brand psychological ownership mediates the relationship between corporate branding and brand citizenship behaviour in a multilevel relationship.

The research framework, presenting the relationships to be tested, can be seen in Figure 1:
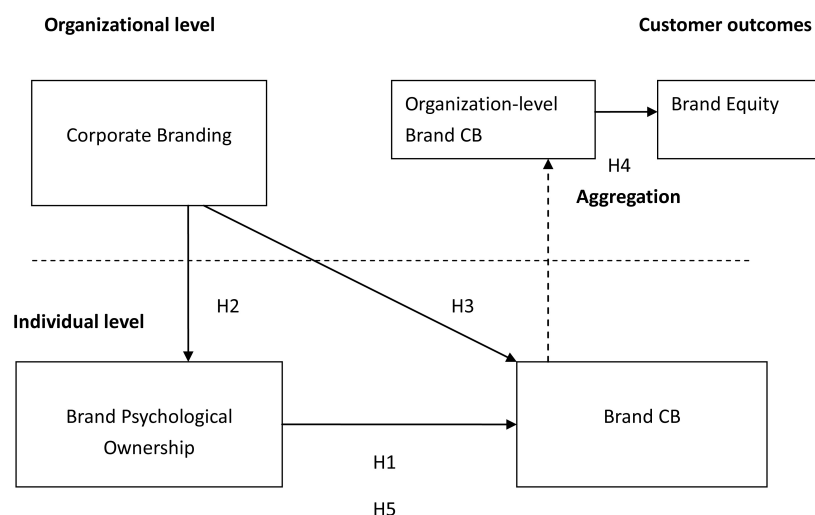

Figure 1. The Research Framework

Method

Hierarchical linear modelling (HLM) is regarded as an appropriate method to investigate the relationships (supervisors and customer-contact employees) among multilevel constructs. It is argued that corporate branding can cause employees to produce positive cognitions (i.e. brand PO) and display positive behaviours (i.e. brand CB), thus improving customers' brand perception. Based on Kidwell *et al.* (1997), hierarchical linear modelling can help solve the problem of bias caused by disaggregation and aggregation. This approach is used to measure the multiple-level effects and multilevel explained variance (Raudenbush and Bryk, 2002).

Samples and data collection procedures

A franchise organisation was considered a suitable context for our research investigation because it usually has multiple branches that share a corporate

brand, allowing us to collect data from different levels within the organisation. Data collection is conducted from two types of franchise organisations, retail, and food and drink organisations. The respondents in this study include supervisors, employees, and customers from 31 franchise organisations listed in the Taiwan Chain Store & Franchise Association. This study follows the guidelines of Hinkin (1998) to conduct scale developments of three constructs, including corporate branding, brand PO, and brand CB. Two-wave data collections were conducted. The first-wave data was collected to conduct exploratory factor analyses and refine measurements. Organisation-level valid data was 135 and individual-level data was 178. The second-wave data was collected to conduct confirmatory factor analyses as well as multilevel analyses. A total of 330 questionnaires were sent to supervisors and 250 were returned, representing a response rate of 76%. 420 questionnaires were sent to employees and 283 were returned, representing a response rate of 67%. Customers were also invited to complete the questionnaires. Thirteen hundred questionnaires were given to customers and 577 were returned, representing a response rate of 44.39%. Among these supervisors, 108 are male (43.2%) and 142 are female (56.8%). Most supervisors are middle-aged (26–35, 53.6%) and most supervisors (165, 66%) have a college degree. Among the employee respondents, 115 are male (40.5%) and 168 are female (59.5%). Most respondents are under the age of 25 (61.7%) and senior high school graduates are constituted 31.7% while college graduates constitute 61.7%. As for customers, this study collected questionnaires from customers one month after surveying supervisors and employees.

Measurement development

Following the work of Hinkin (1998), Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) of the chosen constructs was conducted. All items on both supervisor and employee questionnaires are measured using a 5-point Likert scale where 1 indicates that the individual 'extremely disagreed' and 5 indicates that the individual 'extremely agreed' with a statement.

Corporate branding

Based on theoretical perspectives outlined in the research literature (e.g., de Chernatony, 1999; Urde, 2001), comprehensive concepts of corporate branding were formed. Following a procedure of scale development (Hinkin, 1998), we used a 20-item scale of corporate branding. Results of the EFA include: factor loadings of these items being higher than 0.5, a KMO value of 0.917 and significant Barlett Sphericity Test results (p < 0.001). As for the results of CFA, the fitness indices of corporate branding include χ^2/d.f. = 2.02, GFI = 0.81, RMSR = 0.050, CFI = 0.98, NFI = 0.96, RMSEA = 0.086, and show that the fitness of the model is satisfactory. An example item is: 'Our Company transmits the vision of the corporate brand towards organisational members through various kinds of channels'. Full items and λ of CFA are presented in Table 2 of the Appendix. The Cronbach's alpha value for corporate branding is 0.95. Brand PO (brand PO): Building on the ten-item scale used in Chang *et al.*

(2012) (adopted from Pierce *et al.* 2001 and Van Dyne and Pierce, 2004), the concept of brand PO was refined. A 15-item scale of brand PO was used, following a procedure of scale development (Hinkin, 1998). Results of EFA include: factor loadings higher than 0.5, a KMO value of 0.915 and significant Barlett Sphericity Test results ($p < 0.001$). As for the results of CFA, the fitness indices of brand PO include χ^2/d.f. = 2.46, GFI = 0.89, RMSR = 0.053, CFI = 0.97, NFI = 0.95, RMSEA = 0.09, and show that the fitness of the model is satisfactory. An example item is: 'I feel I have influence on the corporate brand.' Full items and of CFA are presented in Table 3 of the Appendix. The Cronbach's alpha value for brand PO is 0.94.

Brand CB

Building on Chang *et al.* (2012), the concept of brand CB was refined. Following a procedure of scale development (Hinkin, 1998), we used a 12-item scale of brand CB. Results of the EFA include: factor loadings of higher than 0.5, a KMO value of 0.915, and a significant Barlett Sphericity Test result ($p < 0.001$) (Appendix, Table 7). As for the results of CFA, the fitness indices of brand CB include χ^2/d.f. = 2.46, GFI = 0.86, RMSR = 0.053, CFI = 0.97, NFI = 0.95, RMSEA = 0.09, and show that the fitness of the model is satisfactory. An example item of brand CB is: 'I regard customers as my family and solve their problems as I do mine'. Full items and of CFA are presented in Table 4 of the Appendix. The Cronbach's alpha value for brand CB is 0.93.

Customer-based brand equity

This study adopted a 9-item scale from Yoo and Donthu (2001) to measure brand equity. Example items include 'I consider myself to be loyal to the store brand'; 'The store brand would be my first choice'; and 'I will not buy other brands if the store brand is available'. The Cronbach's alpha value for the scale was 0.9.

Control variables

The control variables on the individual level are gender, age, and education. The control variable on the organisational level is franchise type.

Common method variance

In accordance with Podsakoff *et al.* (2003), this study adopts procedural and statistical remedies to attenuate the errors associated with the common method variance. As in Chang *et al.* (2012), with respect to procedural remedies, two methods were utilized. First, the data from organisation-level variables and individual-level variables were collected from different sources. Second, this study allowed the respondents to be anonymous and assured them that they could answer questions as honestly as possible. With respect to statistical remedies, results indicate that the fitness of the six-factor model is better than the one-factor model. The comparisons of results in Table 1 indicate that the problem of common method variance has been overcome.

Table 1: Fitness indices of different models

Model	χ^2/df	CFI	NFI	RMSR	RMSEA	GFI
One-factor Model	7.58	0.95	0.94	0.071	0.14	0.65
Six-factor Model	2.72	0.98	0.97	0.046	0.07	0.84
Seven-factor Model	2.35	0.98	0.95	0.051	0.068	0.83

Results

Null model analyses

Firstly, the null model was tested to confirm the need to investigate the research questions with cross-level analyses (Raudenbush and Bryk, 2002). A null model is one-way ANOVA with random effects; it predicts the level 1 intercept of the dependent variable as a random effect of the level 2 grouping variable, with no other predictors at level 1 or 2 in a two-level model. The null model serves as a 'baseline model' for purposes of comparison with more complex models, such as the model that specifies the level 1 intercept dependent on the predictors at level 1 or level 2. If the value of the residual variance of the intercept (t00) associated with the null model reaches a significant level (Hofmann, 1997), it indicates that the intercept term varies across groups, and the amount of variance that could potentially be explained by the Level-2 predictor. From our analytical results, t00 of brand PO (0.101, $p < 0.001$) and brand CB (0.124, $p < 0.001$) are all significant, which indicate it is appropriate to investigate the relationships through multilevel analyses.

Aggregation of the constructs

Based on James (1982) and Hofmann (1997), researchers have to check between-group variance and within-group variance before procedures of aggregation. In order to investigate within-group consistency, *rwg* values were adopted, in accordance with James (1982). The results show that the median value of *rwg* for corporate branding is 0.974 and the median *rwg* value for brand CB is 0.99. All of the *rwg* values are above the acceptable level of 0.6 (James, 1982). In order to examine intra-class correlation (ICC (1)) and reliability of group means (ICC (2)) for brand PO, and brand CB, this research adopts ICC(1) and ICC(2) to investigate between-group variance (James ,1982; Glick ,1985; Raudenbush and Bryk, 2002). The results show that the ICC (1) value for brand PO is 0.198 and the ICC (2) value for brand PO is 0.896. Furthermore, the ICC (1) value for brand CB is 0.228 and the ICC (2) value for brand CB is 0.912. The values of ICC (1) and ICC (2) for brand equity are 0.189 and 0.891, respectively. All of these values for ICC (1) are above the acceptable level of 0.12 (James, 1982) and the values of ICC (2) are above the acceptable level of 0.6 (Glick, 1985).

Table 2: Means, standard deviation, and correlations of research constructs

Variables	Mean	S.D.	(1)	(2)	(3)	(4)	(5)
Individual Level							
(1) Brand psychological ownership	3.6316	0.71294	1				
(2) Brand citizenship behavior	3.991	0.72539	0.795***	1			
(3) Gender	1.5856	0.49346	0.070	0.74	1		
(4) Age	1.5685	0.87271	0.067	0.16	0.022	1	
(5) Education	2.6301	0.67364	−0.044	−0.117	0.034	−0.12	1
Organizational Level							
(1) Corporate branding	4.0012	0.53659	1				
(2) Brand psychological ownership	3.5970	0.38610	0.545***	1			
(3) Brand citizenship behavior	4.0041	0.45728	0.305*	0.725***	1		
(4) Brand equity	3.7853	0.33018	0.269	0.526***	0.447***	1	
(5) Type	0.8710	0.34078	0.111	0.159	0.166	−0.54	1

Correlations

As reported in Table 2, brand PO is significantly related to brand CB ($r = 0.795$, $P < 0.01$). Corporate branding is significantly associated with brand PO ($r = 0.545$, $P < 0.01$) and is related to brand CB with a marginal significance ($r = 0.305$, $P < 0.1$). Brand CB is significantly associated with brand equity ($r = 0.447$, $P < 0.01$). The results were found to be consistent with the hypotheses.

Examining the hypotheses

The hypotheses were tested using two types of HLM models, the random coefficients model and the intercepts-as-outcomes model (see the Appendix for formulations of the mathematical models). According to deviances reported in Table 3, all models reach significant levels. The residual analyses show that the model assumptions are not violated. In the individual level analysis, H1 investigates the relationship between brand PO and brand CB. As reported in Model-1 of Table 3, brand PO positively affects brand CB (0.75, $p < 0.01$), supporting H1. In cross-level analyses, H2 investigates the relationship between corporate branding and brand PO. H3 investigates the relationship between corporate branding and brand CB. H4 investigates the relationship between brand CB and brand equity. As Model-2 and Model-3 of Table 3 report, corporate branding positively affects brand PO (0.374, $p < 0.01$) and brand CB (0.287, $p < 0.05$) thus supporting both H2 and H3. Model-5 of Table 3 represents that aggregated brand CB positively affects equity (0.279, $p < 0.01$), which indicates that H4 is supported. The multilevel models are represented as follows.

Table 3: Hierarchical linear modeling results of the proposed model

Models	Model-1	Model-2	Model-3	Model-4	Model-5
Dependent variable / Independent variable	Brand citizenship behavior	Brand psychological ownership	Brand citizenship behavior	Brand citizenship behavior	Brand equity
Individual level					
Intercept	3.773***	3.609***	3.76***	3.79***	3.78***
Brand psychological ownership	0.75***			0.73***	
Gender	−0.009	0.085	0.047	−0.019	
Age	−0.037	0.066	0.018	−0.043	
Education	−0.067	−0.126*	−0.166**	−0.08	
Organizational level					
Corporate branding		0.374***	0.287**	0.017	
Brand citizenship behavior					0.279***
Type		0.123	0.146	0.054	−0.106
Deviance [a]	327.83	540.71	532.97	320.57	821.097

[a] 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

Cross-level mediating effect

In order to explore the importance of brand PO, the mediating role of brand PO is investigated via several steps proposed by Baron and Kenny (1986). This research examines (1) the effect of brand PO on brand CB, (2) the effect of corporate branding on brand CB, and 3) the effect of corporate branding on brand PO. Following these three steps, this study confirms whether the effect of corporate branding on brand CB becomes non-significant or reduced when both corporate branding and brand PO are jointly used as independent variables of brand CB. As reported in Table 3, the deviance of Model-2 (corporate branding → brand PO) is 540.71. The deviance of Model-3 (corporate branding → brand CB) is 532.97. The deviance of Model-4 (brand PO → brand CB) is 320.57. After comparing three models, the value of deviance change is 212 (decreased from 532.9 to 320.5) when brand PO is added as the mediating variable. The level of change reaches a significant level of 0.005 ($212 > \chi^2(1) \, 0.005 = 7.879$). As for the effect of corporate branding on brand CB, the effect is reduced from 0.287 to 0.017. According to the analytical results, brand PO mediates the relationship between corporate branding and brand CB, supporting H5.

Discussion: 'living the brand'

In this study, we find support for the antecedents and consequences of brand PO in multilevel relationships. Brand PO positively affects brand CB revealing that employees who demonstrate brand PO can also display an altruistic brand spirit and engage in extra-role brand behaviour (i.e. brand CB) that contrib-

utes to customer-based brand equity. These results are consistent with the arguments of Pierce *et al.* (2001), social identity theory (Ashforth and Mael, 1989) and social exchange theory (Eisenberger *et al.*, 1986), where it is suggested that highly committed employees identify the corporate brand, display an altruistic spirit and engage in extra-role behaviour. Corporate branding practices, which are regarded as tools to foster brand value, have a positive effect on brand PO and brand CB. The results show that an organisation can help employees to identify themselves with the brand, and trigger an altruistic spirit and extra-role brand behaviour through corporate branding. All of these conclusions support the notion of a highly committed organisation which helps employees to 'live the brand'. These results are also consistent with previous arguments (Whitener, 2001; Allen *et al.*, 2003; Burmann and Zeplin, 2005) which assert that interactive branding management can lead employees to perceive organisational support and thus foster an altruistic spirit and brand CB within them. In contrast to Chang *et al.* (2012), here the authors have utilised interactive branding management (i.e., corporate branding) to widen knowledge of brand management, brand cognition, and brand behaviour. This study finds that employee brand CB contributes to customer-based brand equity. Furthermore, brand PO is found to be a cross-level mediator. This may suggest that brand CB is more likely to be expressed by employees with brand PO. This fosters brand equity when an organisation adopts practices of corporate branding to strengthen the brand value through interactive processes. These results are also consistent with Harris and de Chernatony (2001) who argue that an organisation may transmit brand value to its employees through an interactive process and thus transform their perceptions.

Theoretical implications

This study provides insights into how organisations can foster positive brand attitudes and brand behaviour in employees through practices of corporate branding. Brand PO positively affects brand CB, revealing that an employee's positive cognitions contribute to their positive behaviour. Thus, this research advances understanding of how different targets of PO (e.g., brand) can enhance employees' attitude and behaviours, filling a knowledge gap highlighted by Pierce *et al.* (2003). Building on previous work (e.g. Chang *et al.*, 2012), this study provides further clarification of the PO concept, specifically focusing on the differences between organisational PO and brand PO. In relation to Balmer's (2012) identity-based view of corporate brands, this research has distinguished between corporate identity and corporate brand. Whereas corporate brands are associated with key corporate associations and expectations, which are evoked by a corporate name and/or logo, a corporate identity refers to an institution's defining, distinctive and differentiated institutional attributes. Therefore, PO towards corporates (organisational PO) is different from PO towards corporate brands. However, the relationship between Organisational PO and brand PO may vary depending on different corporate branding strategies and the history of corporate branding; a firm may own a brand through a merger or takeover, and a corporate brand may

evolve with re-branding. As represented in Figure 2, the focus may be on the corporate brand, a single product brand, or multiple brands (family brands). This may have implications on how brand PO develops. If a firm adopts a corporate brand strategy at the beginning of its establishment, then the corporate identity may highly coincide with corporate brand identity, and brand PO will have a high degree of overlap with organisational PO. On the other hand, if a corporate advocates a multiple product brand strategy, employees may be more devoted to a specific brand. The employee may still have high organisational PO, yet be unlikely to have a high degree of corporate brand PO.
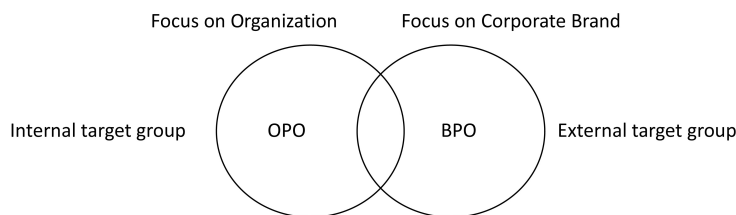
```
     Focus on Organization      Focus on Corporate Brand


Internal target group      OPO          BPO        External target group
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Figure 2: The Relationship between Two Constructs: Brand Psychological Ownership and Organizational Psychological Ownership

Managerial implications

Interactive practices of corporate branding can lead employees to feel brand PO. We also find that the effects of corporate branding on brand CB are not as strong as the effects of corporate branding on brand PO. It is inferred from the analysis that in order to influence employees' brand CBs, the firm has to first help employees identify with the corporate brand and develop a sense of brand PO – via the organisation's practices of corporate branding. It is suggested here that the mediating role of brand PO represents one mechanism through which organisations can strengthen the link between corporate branding and employees' brand cognition and behaviour. For managers, this represents a valuable insight into the psychology of how employees think, feel and behave at work – specifically, in relation to the corporate brand. In conclusion, the findings lead to the understanding that practices of corporate branding affect employees' cognitive awareness toward the corporate brand (Hirst *et al.*, 2009; Meyer *et al.*, 2006), which lead to employees being more likely to exhibit brand altruistic behaviour and foster brand competitiveness. Employees who have access to brand information and rights to participate in brand-related decision making (e.g., departmental coordination) can feel responsible for enhancing brand values. An organisation can also help employees identify with the corporate brand, as they immerse themselves and identify with the visions, culture, and norms (of the corporate brand).

For brand managers who implement practices of corporate branding, some conclusions can be drawn to help foster positive brand cognitions and behaviours amongst frontline employees. First, brand managers can help employees to develop a sense of identification with the corporate brand, by providing recognition to individuals who contribute to the value of the corporate brand. This, we propose, will help foster employees' brand PO and

brand CB (Kay, 2006). Recognition can be provided in the form of rewards. These could be job related (e.g. job rotation, more responsibility, flexible working hours, control over content, an award of share options in a discretionary share ownership scheme, e.g in the UK, Enterprise Management Incentives); have a social context (e.g. private office, company parties; membership of 'high potential' group), or be more personal (e.g. saying 'thank you'; non-verbal recognition, e.g. a smile; formal recognition, e.g. a letter) (see Arnold and Randall, 2010).

Second, managers may help make employees feel effective in brand-related activities via supportive interactions, such as: inspirational brand communication and cross-functional coordination (e.g. attractive and vibrant internal news publications, regular personalised electronic updates, the communication of brand-related targets and achievements); training and enhancement of brand-related knowledge and skills, participation in decisions (e.g. internal surveys, discussion forums, elected representatives/brand champions); and sharing ideas with multiple stakeholders (e.g. focus groups, workshops, publications). It is proposed here that this will be likely to increase employee's brand self-efficacy (i.e. one antecedent of brand PO). For practicing managers, we argue that it is important that communication is delivered to employees at an equally high level of service (on brand issues), as would (ideally) be provided to customers; i.e. a professional, efficient, clear and inspirational approach, which delivers a consistent message. In addition, 'brand champions' (a diverse selection of employees who show a particular passion for the brand) could be elected to sit on internal marketing/brand committees to provide an 'employee voice' on brand issues. Brand champions may be responsible for coordinating the collection of employee views, providing feedback from meetings with senior staff, and representing employees' thoughts and feelings when decisions are being made. Brand champions may also be used to identify internal training opportunities, and help enhance internal brand awareness.

Third, although brand CB is voluntary behaviour and is not mandatory for all employees, managers can acknowledge and encourage all such pro-brand behaviours. These innovative brand behaviours may even be vehicles for organisational learning. To do this, we suggest that managers work to define, clarify and communicate a consistent message of what constitutes 'pro-brand behaviour' to employees. This may in some cases be relatively straight-forward (e.g. using the brand logo in email communication and when sending letters by post) – but it may also be more complex (e.g. when verbally communicating brand values externally – which may, at times, be subject to some interpretation). What is, and what is not, desirable behaviour and how different employees in different areas of the organisation can engage in such behaviour may require a careful and tailored approach within the organisation. Finally, since employees' brand PO can induce brand CB, which further contributes to brand equity, managers may periodically use the scale developed in this research to measure brand PO within the organisation. The scale can provide the diagnostic indices for the organisations to improve brand PO.

Contributions, limitations and future research

Contributions

This research utilises perspectives of interactive branding to investigate the multiple relationships among corporate branding, brand PO, and brand CB. Several critical contributions are discussed. First, the multilevel relationship between corporate branding and brand PO are investigated, showing that practices of corporate branding can cause employees to perceive the ownership of brand-related activities, thus producing brand PO. Second, this study investigates the relationship between corporate branding and brand CB to show that corporate branding can cause employees to engage in extra-role behaviour – improving the customer's perception of the corporate brand. Third, the effect of organisation-level brand CB on customer-based brand equity is empirically tested, showing that employees' brand CB contributes to the corporate brand. Fourth, three different types of data from supervisors, employees and customers were utilised in this study to attenuate the bias of the common method variance. Multilevel approaches have provided an opportunity to examine the effects of organisation-level variables on individual-level variables, while keeping the organisation-level variables for the predictors. The result of this obtained estimates that are less biased than the traditionally used single-level analysis method. Fifth, the multilevel mediating role of brand PO is examined, and it was found that brand PO plays an important role in the process of interactive brand management. Therefore, the organisation may benefit from considering the psychological process of customer service employees in the process of corporate branding.

Limitations and future research

There are several limitations of this study, and a number of opportunities for future research. First, data were collected from 31 franchise organisations in Taiwan. Therefore, the generalisability of this research within the whole industry is limited. Existing knowledge in this area of study would benefit from longitudinal data collected using a random sample and/or from different industries to enhance the generalisability. Longitudinal data would help investigate causal relationships, reducing the bias of common method variance (Schwab, 2005). Second, this study focuses on the positive effects of brand PO. Future studies could investigate the negative effects of brand PO to obtain a comprehensive understanding – an area in which empirical evidence is lacking. This study has also utilised store types as the organisation-level control variable and gender, age, and education as the individual-level control variables. Researchers could, however, utilise scale, organisational commitment, job satisfaction, and social desirability as control variables in future studies. Finally, developing this work further, future research could investigate how franchise organisations interact with multiple stakeholders via the various different practices of corporate branding.

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Appendix

The formulations of mathematical models are discussed as follows.

1. Null Models

Level-1 (Individual level)

$Y_{ij} = \beta 0_j + \varepsilon_{ij}$

Level-2 (Organisational level)

$\beta 0j = \gamma_{00} + u_{0j}$

Note: i = individuals, j = organisations; Y_{ij} refers to brand PO and brand CB.

2. Random Coefficients Regression Model

Model-1

Level-1 (Individual level)

$BCB_{ij} = \beta_{0j} + \beta_{1j}{}^*(BPO_{ij}) + \beta2j{}^*(gender_{ij}) + \beta3j{}^*(age_{ij}) + \beta4j{}^*(education_{ij}) + \varepsilon_{ij}$

Level-2 (Organisational level)

$\beta_{0j} = \gamma_{00} + u_{0j}$
$\beta_{1j} = \gamma_{10} + u_{1j}$
$\beta_{2j} = \gamma_{20} + u_{2j}$
$\beta_{3j} = \gamma_{30} + u_{3j}$
$\beta_{4j} = \gamma_{40} + u_{4j}$

Note: i = individuals, j = organisations

3. Intercepts-as-outcomes Regression Model

Model-2

Level-1 (Individual level)

$BPO_{ij} = \beta_{0j} + \beta_{1j}{}^*(gender_{ij}) + \beta_{2j}{}^*(age_{ij}) + \beta_{3j}{}^*(education_{ij}) + \varepsilon_{ij}$

Level-2 (Organisational level)

$\beta_{0j} = \gamma_{00} + \gamma_{01}(CB_j) + \gamma_{02}(type_j) + u_{0j}$
$\beta_{1j} = \gamma_{10} + u_{1j}$
$\beta_{2j} = \gamma_{20} + u_{2j}$
$\beta_{3j} = \gamma_{30} + u_{3j}$

Model-3

Level-1 (Individual level)

$BCB_{ij} = \beta_{0j} + \beta_{1j}{}^*(gender_{ij}) + \beta_{2j}{}^*(age_{ij}) + \beta_{3j}{}^*(education_{ij}) + \varepsilon_{ij}$

Level-2 (Organisational level)

$\beta_{0j} = \gamma_{00} + \gamma_{01}(CB_j) + \gamma_{02}(type_j) + u0_j$
$\beta_{1j} = \gamma_{10} + u_{1j}$
$\beta_{2j} = \gamma_{20} + u_{2j}$
$\beta_{3j} = \gamma_{30} + u_{3j}$

Model-4

Level-1 (Individual level)

$BCB_{ij} = \beta_{0j} + \beta_{1j}{}^*(BPO_{ij}) + \beta_{2j}{}^*(gender_{ij}) + \beta_{3j}{}^*(age_{ij}) + \beta_{4j}{}^*(education_{ij}) + \varepsilon_{ij}$

Level-2 (Organisational level)

$\beta_{0j} = \gamma_{00} + \gamma_{01}(CB_j) + \gamma_{02}(type_j) + u_{0j}$

$$\beta 1j = \gamma_{10} + u_{1j}$$
$$\beta 2j = \gamma_{20} + u_{2j}$$
$$\beta 3j = \gamma_{30} + u_{3j}$$
$$\beta 4j = \gamma_{40} + u_{4j}$$

Model-5

Level-1(Individual level)

Brand equity$_{ij}$ = β_{0j} + ε_{ij}

Level-2 (Organisational level)

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(BCB_j) + \gamma_{02}(type_j) + u_{0j}$$

Note: i = individuals, j = organisations

Type: 1 = food-drink organisations, 0 = retailer organisations

Table A1:. A comparison with Chang, Chiang and Han (2012)

	This Paper	European Journal of Marketing
Time of data collection	2009–2010	2007–2008
Industry of data collection	Food-drink franchisee organisation and retailers	Hotels
Measurements	Follows scale development guidelines of Hinkin (1998)	Item developments include prior test, EFA, CFA
Organisation-level factors	Corporate branding: 1. Vision and culture of corporate branding 2. Leadership and interaction with stakeholders of corporate branding 3. Departmental coordination of corporate branding 4. Training and selection of corporate branding 5. Communication and evaluation of corporate branding	Brand-centered HRM 1. Brand-centered reward and training 2. Brand-centered selection and evaluation
Factors of brand psychological ownership	1. Brand self-efficacy 2. Brand accountability 3. Identification and belongingness of brand	1. Congruence between brand image and individuals 2. Responsibility of maintaining brand image 3. Brand value effectiveness
Factors of brand citizenship behaviour	1. Helping behaviour of brand 2. Consideration and enhancement of brand 3. Sportsmanship and endorsement of brand	1. Helping behaviour and brand consideration 2. Brand sportsmanship 3. Self-development of brand enhancement
Customer variable	Brand equity: measurement of brand equity (asset)	Customer satisfaction: measurement of customers' perception

Table A2: Organisation-level items: Corporate Branding

Item Contents	λ of CFA
1. Our company transmits the vision of the corporate brand toward members of the organisation through various channels.	0.93
2. Our company transmits the beliefs, values, and norms of the corporate brand to members of the organisation through various channels.	0.97
3. Our company may accept the suggestions provided by other stakeholders (e.g., suppliers and government) in order to enhance service quality and brand image.	0.89
4. V4. Our company may provide good product and service quality in order to realise brand commitment.	0.82
5. Our senior managers make brand strategies which are based on the values of the corporate brand proposed by our company.	0.82
6. Our senior managers make clear brand goals which employees are able to follow.	0.82
7. In order to enhance brand value, our senior managers adjust the contents of products and services according to customer responses.	0.82
8. Different departments of our company work together to design activities for improving brand image.	0.81
9. Different departments of our company often discuss how to make employees express brand behaviours.	0.83
10. Different departments of our company often exchange information in order to make each department better understand customers' perception of the corporate brand.	0.88
11. When the market share of the brand is enhanced, our company rewards employees who participate in brand-related activities.	0.81
12. Our company makes newcomers understand brand-related value and spirit through training.	0.73
13. Our company makes the personal values and behaviours of employees consistent with brand value through training courses.	0.84
14. Our company considers the personal values of applicants to recruit employees with person-brand fit.	0.81
15. Our company makes employees compare their behaviours with a brand-related standard via self-evaluation or colleague-evaluation.	0.74
16. Our company regularly assesses employees' contribution towards brand value.	0.78
17. Our company often transmits values of the brand towards organisational members through various informal channels, such as interactions between colleagues.	0.79
18. Our company often transmits the values of the brand towards organisational members through various formal channels, such as through regular meetings.	0.88
19. Our company often transmits the values of the brand towards stakeholders through interactions between organisational members and stakeholders (e.g. customers, suppliers, and the government).	0.8
20. Our company often transmits brand values to stakeholders through various communicative channels such as advertisements, meetings, public relations, and networks.	0.88

Note: Fitness: χ^2/d.f. = 2.02, GFI = 0.81, RMSR = 0.050, CFI = 0.98, NFI = 0.96, RMSEA = 0.086.

Table A3: Individual-level Itmes: BPO

Item Contents	λ of CFA
1. I feel I have influence on the corporate brand.	0.66
2. I feel that I can successfully transmit the brand values in the process of interacting with customers.	0.69
3. I feel that I can successfully respond to customers' feedback to the company.	0.82
4. I feel that I can successfully advise the company about brand-related thoughts.	0.7
5. I feel that realising corporate brand values is my responsibility.	0.65
6. When others criticise the corporate brand, I may solve the problem according to the sources of the problem.	0.78
7. I defend the brand image when others criticise it.	0.72
8. I feel the corporate brand is like my brand.	0.69
9. I feel I am closely linked with the corporate brand.	0.75
10. I like the corporate brand.	0.82
11. I like the image and personality of the corporate brand a lot.	0.87
12. I identify with the beliefs, values, and norms of the corporate brand.	0.88
13. I identify with the vision of the corporate brand.	0.8
14. I identify with activities related to the corporate brand.	0.81
15. I feel the success of the corporate brand is like my success.	0.77

Note: Fitness: χ^2/d.f. = 2.46, GFI = 0.89, RMSR = 0.053, CFI = 0.97, NFI = 0.95, RMSEA = 0.09.

Table A4: Individual-level items: BCB

Item Contents	λ of CFA
1. I regard customers as my family and solve their problems as I do my own.	0.89
2. I solve customers' problems willingly to foster brand value.	0.81
3. I voluntarily help newcomers to foster service quality and brand value.	0.7
4. I voluntarily participate in brand-related activities.	0.8
5. I never complain about inconveniences caused by brand-related activities.	0.78
6. I tolerate inconveniencies caused by brand-related activities to satisfy customers and enhance brand value.	0.69
7. I am willing to endorse the brand and voluntarily transmit brand value to newcomers or friends.	0.77
8. I am willing to endorse the brand and have trust and loyalty towards the brand.	0.75
9. I am willing to endlessly enhance brand-related skills.	0.78
10. I strengthen my professional knowledge to foster brand value.	0.78
11. I voluntarily provide new information and ideas for the brand to enhance brand value.	0.8
12. Regardless of positive or negative information, I voluntarily respond to customers' thoughts on my company.	0.69

Note: Fitness: χ^2/d.f. = 2.46, GFI = 0.86, RMSR = 0.053, CFI = 0.97, NFI = 0.95, RMSEA = 0.09.

Table A5: Customer Items: Customer-based Brand Equity

Item Contents

1. I consider myself to be loyal to the store brand.
2. The store brand would be my first choice.
3. I will not buy other brands if the store brand is available.
4. The likely quality of the store brand is extremely high.
5. The likelihood that the store brand would be functional is very high.
6. I can recognise the store brand among other competing brands.
7. I am aware of the store brand.
8. Some characteristics of the store brand come to my mind quickly.
9. I can quickly recall the symbol or logo of the store brand.