



A multilevel investigation of relationships among brand-centered HRM, brand psychological ownership, brand citizenship behaviors, and customer satisfaction

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Abstract

Purpose – This paper aims to investigate the process of internal brand management that makes employees identify with the corporate brand and produce positive attitudes and behaviors, thus contributing to customer satisfaction. Three constructs, brand-centered HRM, brand psychological ownership, and brand citizenship behaviors, are utilized to examine the process of internal brand management. The first construct, brand-centered human resource management (HRM), represents managerial practices that improve brand cognitions and brand attitude of employees. The second construct, brand psychological ownership, explains the psychological experiences that make employees feel brand ownership and then express altruistic spirit of the brand. The third construct, brand citizenship behaviors, shows that employees live the brand.

Design/methodology/approach – This multilevel research of collecting data from 453 employees, 172 supervisors, and 933 customers from 26 hotels demonstrates the results of different levels. Hierarchical linear modeling is utilized to investigate the relationships among these constructs.

Findings – Results at the individual level show that brand psychological ownership of employees has positive effects on brand citizenship behaviors, and all factors of these two constructs are also correlated positively. Results at the cross level demonstrate that brand-centered HRM has positive effects on brand psychological ownership and brand citizenship behaviors. Organizational-level brand citizenship behaviors positively affect customer satisfaction. Furthermore, brand psychological ownership partially mediates the relationship between brand-centered HRM and brand citizenship behaviors.

Practical implications – An organization can adopt brand-centered HR practices to make employees produce brand psychological ownership and brand citizenship behaviors, thus contributing to customer satisfaction. HR managers can strengthen employees' brand citizenship behaviors by fostering their brand psychological ownership feelings.

Originality/value – This paper explores the conception, measurement, and explanatory power of the new research construct (i.e. brand psychological ownership) on the effectiveness of internal brand management.

Keywords Brand-centred human resource management, Brand psychological ownership, Brand citizenship behaviours, Customer satisfaction, Brands, Corporate branding

Paper type Research paper



Introduction

Research has shown that positive interaction between employees and customers can contribute to brand value and organizational performance (Burmam and Zeplin, 2005; Ramani and Kumar, 2008). To foster employee behavior consistent with brand value has been the main focus of internal brand building. Literature on internal branding documents the effects of marketing control, employee empowerment, corporate identity structure and leadership (Henkel *et al.*, 2007, Vallaster and de Chernatony, 2006). Yet, there remains unclear understanding as to how the human resource management, the most comprehensive set of employee directing and supervising system in a firm, could contribute to the internal brand management. The rare cases are research work done by Burmann and Zeplin (2005) and Burmann *et al.* (2009), in which they reveal that brand-centered HR activities have a positive effect on brand commitment of employees. However, their research analysis does not take into considerations of effects at different organizational levels. Research results have shown that human resource practices are the important foundation of organizational competitive advantage (Collins and Clark, 2003). Yet, prior research has not thoroughly addressed the issue of how human resource practices may affect the brand value and market performance. Therefore, the first objective of this study intends to investigate the important role of human resource management in the multilevel brand management.

Second, internal branding literature has seldom addressed the mental process of employee through which the brand-consistent behaviors has been developed. Research has shown that greater involvement and liking for the brand can be the result of ownership (Kirmani *et al.*, 1999). Possession or feeling of ownership could induce psychological ownership of an object (Heider, 1958, Beggan, 1992; Nesselroade *et al.*, 1999). While lacking legal ownership, employees may still develop a sense of psychological ownership via the mental processes (Rousseau and Shperling, 2003). Van Dyne and Pierce (2004) find that psychological ownership is positively associated with organizational commitment, which is an important source of organizational competitive advantage and is usually enhanced through organizational support (Allen *et al.*, 2003). Based on the previous research, this study infers that employees can develop a sense of ownership towards the brands they work for and brand psychological ownership may produce positive brand-related attitudes and behaviors that contribute to the brand value. Therefore, brand psychological ownership is important in the process of internal branding which benefit both the organizational members and customers. It is important for researchers to investigate the antecedent and consequence of brand psychological ownership in order to clearly understand employees' brand mental processes. However, the construct of brand psychological ownership has yet to be explored, and evidence of its importance has not been established. The second objective of this study intends to investigate this new constructs and explore the mental processes experienced by employees.

Podsakoff *et al.* (2000) propose that altruistic spirit can be evoked by organizational commitment and employees with altruistic spirit might produce citizenship behaviors that deliver extra-role value to the customers and colleagues. Extending from this research of Podsakoff *et al.* (2000), Burmann and Zeplin (2005) propose the construct of brand citizenship behaviors and its dimensions: helping behavior, brand consideration, brand enthusiasm, sportsmanship, brand endorsement, self-development, and brand

advancement. These behaviors make employees not only act as sellers but also show more empathy to satisfy customers. Therefore, it is likely that brand citizenship behaviors would lead to higher customer satisfaction. However, the relationship between brand citizenship behaviors and customer satisfaction has yet been explored. The third objective of this study is to examine the relationship between brand citizenship behaviors and customer satisfaction.

The existence of brand citizenship behaviors represents that the relationship between employees and the organization is not a purely transactional relationship. The non-transactional relationship is likely fostered by supportive management practices. Burmann *et al.* (2009) demonstrate that brand citizenship behaviors can be the consequence of brand commitment, which in turn is the result of brand-centered HR activities. Besides, it is found that psychological ownership, an antecedent of organizational commitment, is also enhanced through organizational support (Van Dyne and Pierce, 2004). According to Burmann and Zeplin (2005), employees with brand citizenship behaviors may express brand voluntary behaviors, thus improving the perceptions of customers. Burmann *et al.* (2009) also present preliminary empirical evidence of brand citizenship affecting brand-customer relationship. We infer the relationships among brand-centered HRM, brand psychological ownership, brand citizenship behaviors, and customer satisfaction are significant. However, prior research has yet thoroughly examined these relationships. Therefore, the overall purpose of this research aims to fill this knowledge gap.

This research utilizes a survey to study the relationships among brand-centered HRM, brand psychological ownership, brand citizenship behaviors, and customer satisfaction. Since the phenomena to be observed via two levels of organizational behaviors, functional management and first-line service employees, hierarchical linear modeling approach is used to investigate the relationships among the research factors. In individual-level analyses, we investigate the relation between brand psychological ownership and brand citizenship behaviors. In cross-level analyses, this study examines the effects of brand-centered HRM on brand psychological ownership and brand citizenship behaviors and then investigates the effects of the aggregated brand citizenship behaviors on customer satisfaction.

In the next section, we present the review of the literature and the research hypotheses. Then the research method is described, which is followed by the presentation of the results. We conclude with discussion, implications, limitations, and suggestions for future study.

Literature review and hypotheses

Social exchange theory and internal branding

As argued by scholars (Aseleage and Eisenberger, 2003; Allen *et al.*, 2003; Flynn, 2005), the relationship between employees and the organization can be explored by social exchange theory. The concepts of social exchange theory based on Blau (1964) and Homans (1961) highlight the importance of exchange relationships between the organization and its employees (Eisenberger *et al.*, 1986). For example, for the organizational goals to be accomplished through employees, the employees have to be motivated (Aseleage and Eisenberger, 2003). High-quality social exchanges will exist when employees have high levels of mutual trust, respects, and loyalty with the organization (Chen and Klimoski, 2003). As asserted by Molm and Cook (1995),

employees who believe that the reciprocal exchange of valued benefits can occur are more willing to establish exchange relations with other colleagues and the organization. In that situation, mutual relationships between employees and the organization can be established as positive, long-term, and interactive relations that contribute to organizational performance.

Internal branding is regarded as the process of promoting the brand to employees, educating them what the brand value is (Aurand *et al.*, 2005), and then making employees' perception and behaviors transformed (Vallaster and de Chernatony, 2006). During the process, if the employees' needs are satisfied through the exchange relations, the employees can result in better brand attitude, brand psychological ownership and altruistic behavior, thus contribute to customer satisfaction.

Brand-centered human resource management

Human resource management can be divided into "control" and "commitment" types (Whitener, 2001); the former focuses on norms, supports, rewards, and monitoring of employee behaviors, and the latter focuses on encouraging employees to identify with organizational goals and dedicate themselves to enhance productivity and efficiency. Similar classification schemes are used in the studies of strategic HRM: employee management practices are divided into "low cost" and "high commitment" orientations (Delery and Doty, 1996; Youndt *et al.*, 1996). Since the orientation of HRM has a long-term effect on employees' attitudes and behaviors, the organization should align its HRM orientation with the organizational strategic posture. Therefore, if an organization opts for brand building strategy, then adopting brand-centered HRM orientation would make employees' behaviors to have a pro-brand manners. Brand-centered HRM is defined as HR practices that make employees produce positive attitude and behaviors toward the brands of the firm in this research.

Delery and Doty (1996) contend that the primary focus of talent selecting is to hire those employees who have adequate ability to meet organizational goals. Thus, an organization may adopt brand-centered HR practices to induce employees to act according to the proper brand behaviors, which may contribute to the organization's better image. Previous research documents that organizations with good images have good organizational identification and better perceptions of customers toward the organizations (Girod, 2005). Aurand *et al.* (2005) demonstrate that via certain HR practices, such as selectivity of staffing, comprehensiveness of training, developmental performance appraisal, externally equitable rewards, and individually equitable rewards suggested by Snell and Dean (1992), an organization can help employees implement brand-centered strategies. Burmann and Zeplin (2005) also contend that brand-centered HRM may contribute to the generation of brand identity internalization which is important to internal brand management. According to Aurand *et al.* (2005), employees who perceive a strong involvement of HR function may produce positive attitudes and behaviors, which are consistent with Allen *et al.* (2003) who utilize social exchange theory to explain the relation between employees and the organization.

Successful practitioners indeed pay attention to brand-centered human resource management. For example, Intel and Starbucks Coffee put advertisements in Time Magazine which feature their employees as valuable brand asset, and big contribution to their brand value (Whitman, 2009). An "Intel Star" TV ad-Sponsor of tomorrow shows that the Intel Fellow is treated like a celebrity, sending messages to both

consumers and (potential) employees that they see employee as important brand assets. Starbucks in their advertising also convey the company's highly regard of their employees. The ads tell consumers:

... the little extra you pay for our coffee lets us hire and train people who know the difference between a macchiato and a cappuccino. Our people are valuable. So, in return for their dedication, we offer full healthcare coverage to everyone who works at least 20 hours a week. We continue to do this, even in hard times, because it's the right thing to do (Whitman, 2009).

Taiwan's largest and best-service quality-award winning restaurant conglomerate, Wang Steak, proclaim "human resource and business culture" as their core values. The company adopts "Awaking Lion Program" to cultivate brand managers. The program selects employees with entrepreneur spirit and brand building capability, and gives abundant support for the brand managers to exploit opportunities, yet, put them under strict and intense examination for their proposals. The program results in many fast-growing restaurant brands (Ministry of Economics, Taiwan, 2010). As to the operational level employees, Wang Steak's brand-centered human resource management features with putting customer response as important performance review criterion, taking as high as 30 per cent of the rating points. The company also sets generous compensation program for employees that contribute to brand success, such as bonus sharing, better salary and benefit fringe than industry standard, and the benefits even extend to the family of employees. They also emphasize on employees participation in monitoring brand performance as well as fostering an organizational atmosphere that are empathetic and supportive. To facilitate differentiation in the brand portfolio, the company cultivate different brand personality through different specifications of brand elements, including employee's characteristics, outwear and behavioral code (Manager Today, 2008).

Brand psychological ownership

As argued by Etzioni (1991), ownership is a dual creation; one is the objective entity existing in reality, and the other is the psychological attitude existing in mind. Pierce *et al.* (2001) define psychological ownership as individual feelings of ownership toward things that are substantial or non-substantial, referring to tangible or intangible objects, such as subgroups, ideas, artistic creations, and people (Pierce *et al.*, 1991, 2001; Van Dyne and Pierce, 2004). As noted by O'Driscoll *et al.* (2006), individuals may feel targets as their self-extensions when targets are closely connected with individuals. Actually, psychological ownership is significantly different from lawful possessions. Psychological ownership is psychologically experienced by individuals through the mental process; in contrast, lawful possessions are recognized and ensured by a society. While lacking legal ownership, individuals may still develop a sense of psychological ownership through their psychological experiences (Rousseau and Shperling, 2003). Van Dyne and Pierce (2004) find that employees with psychological ownership have positive attitudes, extend self-concept, and have a sense of responsibility toward the target. Similarly, Pierce *et al.* (2001) propose three roots of psychological ownership include having a place or home, efficacy and effectance, and self-identity.

Based on Pierce *et al.* (2001), and Van Dyne and Pierce (2004), this study defines brand psychological ownership as the psychological experiences that make employees produce positive brand cognitions and brand attitudes, such as feelings of ownership

toward corporate brand, altruistic spirit toward brand-related activities. Also, we contend that employees with brand psychological ownership may produce positive attitudes toward corporate brand, identify themselves according to corporate brand, feel they are effective in brand-related activities, and would like to defend corporate brand.

As argued by Avey *et al.* (2009), employees' psychological ownership can be explained by social exchange theory and self-identity perspective. The former theory contends that employees whose needs are satisfied by the organization will disregard their gain to apply effort to the organization and then reciprocate via psychological ownership; the latter perspective argues that when personal identification is integrated with the organizational targets through the inspiration of leaders, employees will disregard their gains to achieve the leader's vision, and regard these efforts as expression of self-identity. Extended from these perspectives, employees who have developed brand psychological ownership due to satisfying exchange relations or transformational leaderships of internal branding management may in turn reciprocate the organization by acting altruistically towards the organization and its stakeholders, e.g. customers.

Brand citizenship behaviors

Organizational citizenship behavior is defined by Organ (1988) as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization." Wang *et al.* (2005) also assert that organizational citizenship behaviors are discretionary and informal behaviors that supported task performance. Previous research finds that organizational citizenship behaviors are influenced by the social and psychological work environment (Wang *et al.*, 2005) and are significantly related to organizational performance (Podsakoff *et al.*, 2000).

Burmann and Zeplin (2005) define brand citizenship behaviors as an aggregated construct of individual behaviors that may enhance brand strength. Based on the perspectives of Podsakoff *et al.* (2000) Burmann and Zeplin (2005) propose seven dimensions related to brand citizenship behaviors: helping behaviors, brand consideration, brand enthusiasm, brand sportsmanship, brand endorsement, self-development, and brand advancement. These seven dimensions are further clarified as follows. Helping behaviors indicate that employees have positive attitudes, friendliness, helpfulness, and empathy toward external customers. Brand consideration is regarded as brand-centered guidelines that employees have to follow. Brand enthusiasm refers to extra-role brand behaviors showed by employees. Following the definition of sportsmanship by Organ (1990), brand sportsmanship is a mental state of employees who never complain about inconvenience caused by brand-centered tasks. Brand endorsement is defined as the situation that employees are willing to defend and endorse the brand value even in a non-job-related situation. Brand self-development represents voluntary behaviors of employees that may improve their brand-centered knowledge, skills, and abilities. Brand advancement includes employee contributions to enhance brand identity via customer feedbacks and innovative ideas. Based on social exchange theory, employees whose needs are satisfied by the organization tend to engage in positive behaviors (Avey *et al.*, 2009),

such as brand citizenship behaviors. Customer satisfaction can be enhanced by customer-faced employees who have brand citizenship behaviors.

Hypotheses

This research proposes four hypotheses to be tested. Figure 1 exhibits the research frameworks and the hypotheses.

Brand psychological ownership and brand citizenship behaviors

Employee’s experience of psychological ownership facilitates positive attitudes toward targets (e.g. organization, brand etc.), which help employees to identify self-existence and self-meaning, let them feel they are effective in brand-related activities (Van Dyne and Pierce, 2004; Pierce *et al.*, 2001) Therefore, employees with brand psychological ownership may produce brand altruistic spirit, that is brand citizenship behaviors. From empirical evidence, organizational psychological ownership results in organizational commitment (Van Dyne and Pierce, 2004), which in turn evokes altruistic spirit and contributes to organizational citizenship behaviors (Podsakoff *et al.*, 2000). We thus propose that brand psychological ownership is positively related to brand citizenship behaviors.

H1. Brand psychological ownership positively affects brand citizenship behaviors.

Brand-centered HRM and brand psychological ownership

Internal branding is important in brand building endeavors, especially in service sectors (Brexendorf and Kernstock, 2007). Internal branding focuses mostly on making

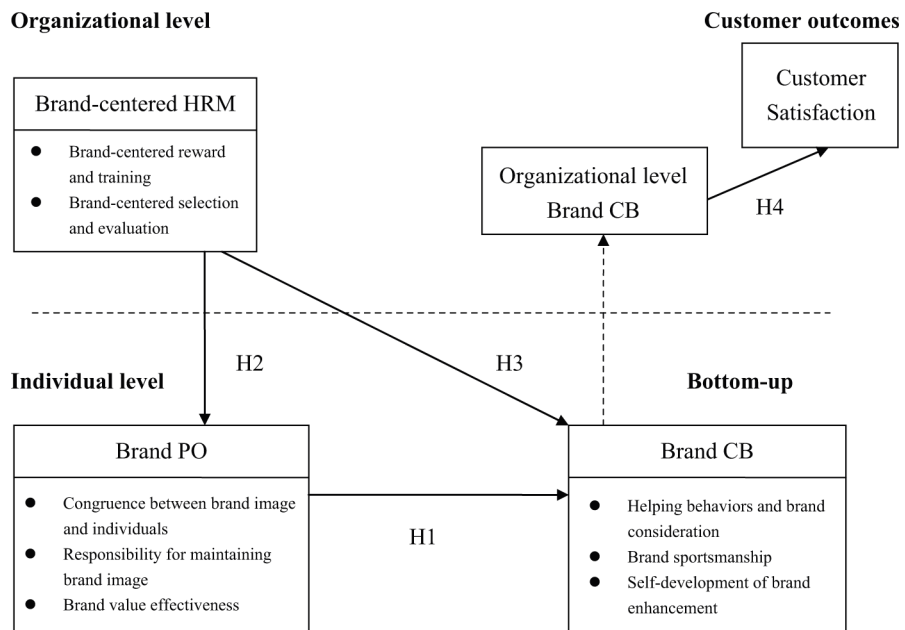


Figure 1.
Research framework

employees identify with the corporate brands and have a customer focus on attitude, thus contributing to customer satisfaction (Aurand *et al.*, 2005; Gotsi and Wilson, 2001). Martin *et al.* (2005) propose that human resource practices are like the power and channel to transmit the brand value to the organizational members. Brand human resource management can be a strategy that increases brand value by creating condition where employees become highly involved in brand practices and work hard to accomplish brand goals.

Burmann and Zeplin (2005) contend that a brand-centered HR management needs to ensure that applicants with high identity-brand identity fit are recruited and selected, and that those employees with a high personal identity-brand identity fit are promoted. HR management can contribute to the generation of brand identity internalization through various training sessions, social events, and mentor programs. In addition, brand value consistent behavior can be rewarded through pro-brand incentive systems. Therefore, brand-centered HR will foster brand psychological ownership of employees because the institutionalized socialization has a significant impact on organizational identification and person-brand fit.

Brand-centered HR management is characterized as “commitment” types of HR (Burmann and Zeplin, 2005; Whitener, 2001), which focuses on encouraging employees to identify with organizational goals and dedicate themselves to enhance productivity and efficiency. Based on social exchange theory, Allen *et al.* (2003) and Whitener (2001) assert that an organization utilizing commitment type HR practices will affect employees’ cognitions, such as perceived organizational support. Therefore, this study proposes brand-centered HRM which is regarded as supportive HR practices may make employees produce brand psychological ownership; thus *H2* is proposed.

H2. Brand-centered HRM positively affects brand psychological ownership.

Brand-centered HRM and brand citizenship behaviors

As argued by researchers (Leana and Van Buren, 1999; Sun *et al.*, 2007), supportive HRM may contribute to the employee’s role of a good organizational agent; organizational citizenship behavior is one of the examples. Bettencourt and Brown (1997) define service-oriented organizational citizenship behaviors as “discretionary behaviors of contract employees in servicing customers that extend beyond formal role requirements.” Three dimensions of service-oriented OCB proposed by Bettencourt *et al.* (2001), which include loyalty, participation, and service delivery, and service-oriented OCB may improve employee service delivery via individual initiative and communications (Sun *et al.*, 2007). Compared to service-oriented OCB, the concept of brand citizenship behaviors is captured not only by service-oriented behaviors that enhance customer satisfaction and brand strength, but also by employees’ voluntary behaviors that contribute to internal branding (Burmann and Zeplin, 2005). Based on perspectives of Bettencourt *et al.* (2001), Burmann and Zeplin (2005), and Sun *et al.* (2007), this study argues that employees with brand citizenship behaviors may tolerate inconveniences caused by brand-related activities to make internal branding successful and satisfy customers beyond formal requirements. Supportive brand-centered HR practices may induce brand psychological ownership experiences, e.g. feeling that they are effective in brand-related activities, and positive attitudes and even altruistic spirit toward corporate brand, which contribute to brand citizenship behaviors. From empirical evidence, high-commitment HRM which is also

regarded supportive HR practices can affect employees' commitment (Whitener, 2001) that contributes to organizational psychological ownership (Vande Walle *et al.*, 1995). We thus infer that brand-centered HR practices may inspire brand altruistic spirit that contributes to brand citizenship behaviors of employees.

Therefore, brand-centered human resource practices are positively related to brand citizenship behaviors, and thus *H3* is proposed.

H3. Brand-centered HRM positively affects brand citizenship behaviors.

Brand citizenship behaviors and customer satisfaction

Customer satisfaction is regarded as customers' overall evaluation of consumption experience, such as actual and anticipated purchasing experience (Fornell *et al.*, 1996). Brand citizenship behaviors refer to voluntary brand behaviors (Burmam and Zeplin, 2005), that is, brand CB represents employees' discretionary and informal behaviors which support activities of internal and external branding. This study argues that employees with brand citizenship behaviors may express brand-oriented behaviors beyond formal requirements which contribute to external branding, indicating high customer satisfaction produced by good service behaviors of employees (Sun *et al.*, 2007). Based on social exchange theory, employees who perceive organizational support and care may produce positive behaviors enhancing organizational performance (Eisenberger *et al.*, 1990). Therefore, this study asserts employees who receive supportive brand-centered HR practices can reciprocate the organization through brand citizenship behaviors that make customers satisfied. Therefore, *H4* is proposed.

H4. Brand citizenship behaviors positively affect customer satisfaction.

Method

To solve the problem of bias caused by disaggregation and aggregation (Kidwell *et al.*, 1997), this study utilized the hierarchical linear modeling as the major approach to investigate relations between brand-centered HRM, brand psychological ownership, brand citizenship behaviors, and customer satisfaction. Not only multiple-level effects but also multiple-level explained variance can be measured via the approach of hierarchical linear modeling (Raudenbush and Bryk, 2002).

Samples and procedures

The data in this study are obtained from questionnaires distributed to supervisors and employees. The supervisor questionnaire measures brand-centered HRM from the perspective of supervisors. Furthermore, the employee questionnaire measures employees' cognition and behaviors, including brand psychological ownership and brand organizational citizenship behaviors. All responses to items are measured on a five-point Likert scale, ranging from 1 = "extremely disagree" to 5 = "extremely agree". Respondents of this study are supervisors, employees, and customers from 26 hotels in Taiwan recruited through Taiwan Hotel Association. Letters of cooperation solicitation are first sent out, and phone calls are then made to confirm the willingness to participate in the survey. As reported in Table I, 520 questionnaires of supervisors are sent and 172 were returned, which represents the response rate is 33 per cent. A total of 1,300 questionnaires of employees are sent and 453 questionnaires are returned,

which represented the response rate is 35 per cent. As for customers, this study places questionnaires of customers on the counter of each hotel after surveying supervisors and employees. Customers are invited to fill out the survey questionnaires by the employees, 1,820 questionnaires of customers are sent and 933 questionnaires are returned, which represents the response rate is 51 per cent (Appendix Table AI). The responses from each firm for supervisor, employees, and customers range from 4 to 9, 10 to 22, and 30 to 51, respectively.

Item development

The concepts of brand-centered HRM are extended from the perspectives of Snell and Dean (1992), and Burmann and Zeplin (2005). After interviewing seven managers of five different hotels in Taiwan, questionnaire items are developed. To confirm that these items are suitable, the questionnaire of brand-centered HRM is confirmed through a pilot test, which collects data from 42 EMBA students of a university in North Taiwan. The questionnaire, which includes 17 items, is sent to EMBA students, opinions regarding the suitability of the wording and representations of concept being addressed are obtained. After the reliability check, no items are deleted. The Cronbach's alpha of the scale is 0.92, which represents the questionnaire of brand-centered HRM is reliable. The items are considered by the EMBA students to have adequate representation for the brand-centered HRM activities.

In individual-level pilot tests, concepts of brand psychological ownership are adopted from the perspectives of Pierce *et al.* (2001) and Van Dyne and Pierce (2004), and concepts of brand organizational citizenship behaviors are adopted from the perspectives of Burmann and Zeplin (2005) and Sun *et al.* (2007). After interviewing ten employees of five different hotels in Taiwan, individual-level questionnaires are developed. The questionnaires of brand psychological ownership and brand citizenship behaviors, which contain ten and 16 items respectively, are sent to 35 MBA students to check for the wording clarity. After the reliability check, no items are deleted. The Cronbach's alphas of the two scales are 0.91 and 0.96 respectively, thus the reliabilities of the two scales are considered adequate.

Measurements

Brand-centered HRM. The 17-item brand-centered HRM scale used in this study is developed through literature survey, interviews with academic and professional experts and has been pretested for reliability. The scale measures supervisors' perceptions of the extent of brand-centered HR practices adopted in the organization, including brand-centered selection, training, evaluating and rewarding. An example item of brand-centered rewarding is, "When employees display behaviors fostering

	The number of questionnaires sent	The number of questionnaires returned	Response rate (%)
Supervisors	520 (20 per hotel)	172	33
Employees	1,300 (50 per hotel)	453	35
Customers	1,820 (70 per hotel)	933	51

Table I.
Details of samples

brand value, our company gives employees formal rewards.” An example item of brand-centered selection is, “Our company considers personal traits of applicants to recruit employees with person-brand fit.” All items of brand-centered HRM are listed in Table II.

Brand psychological ownership (Brand PO). A ten-item scale adopted from Pierce *et al.* (2001) and Van Dyne and Pierce (2004) is modified and applied to capture employees’ brand psychological ownership. An example item of congruence between brand image and individual is, “I am willing to implement brand value because I feel my personal value is consistent with brand value.” An example item of responsibility for maintaining brand image is, “I defend the brand image when others criticize it.” An example item of brand value effectiveness is, “I can successfully transmit the brand value in the process of interacting with customers.” All items of brand psychological ownership are listed in Table III.

Items	Factor loading	
	Brand-centered reward and training	Brand-centered selection and evaluation
Our company compensates employees for providing brand-related creativity and information	0.868	0.183
When employees display behaviors fostering brand value, our company gives employees formal rewards	0.853	0.203
When the market share of the brand enhances, our company rewards employees who participate in brand-related activities	0.763	0.213
Our company makes newcomers understand brand-related value and spirit through training	0.659	0.416
Our company often transmits brand-related value through formal communication platform	0.602	0.390
Our company makes personal value and behaviors of employees consistent with brand value through training courses	0.590	0.428
Our company considers personal traits of applicants to recruit employees with person-brand fit	0.204	0.844
Our company considers personal value of applicants to recruit employees with person-brand fit	0.228	0.759
Our company considers employees’ brand-oriented behaviors in the process of evaluation	0.244	0.752
The brand image may help our company recruit appropriate employees while recruiting newcomers	0.206	0.691
Our company makes employees compare their behaviors with a brand-related standard via self-evaluation or colleague-evaluation	0.409	0.652
Our company focuses on cultivating brand-related talents	0.459	0.576
Our company often communicates brand-related spirit, content, and value while developing new products or services	0.395	0.539
Cumulative variance %	31.762	63.32
Cronbach’s alpha	0.906	0.861

Table II.
EFA of brand-centered
HRM

Items	Congruence between brand image and individuals	Factor loading	
		Responsibility for maintaining brand image	Brand value effectiveness
I am willing to implement brand value because I feel my personal value is consistent with brand value	0.810	0.277	0.216
I hope family and friends feel that my image is consistent with the brand image	0.702	0.355	0.320
I hope my customers feel that my service consistent with the brand image	0.702	0.324	0.283
I feel I am praised when the brand is praised	0.217	0.781	0.284
I defend the brand image when others criticize it	0.355	0.763	0.173
When others criticize the brand, I will improve defects fundamentally	0.407	0.639	0.245
I often transmit brand positive value to my friends and family	0.202	0.205	0.863
I can successfully transmit the brand value in the process of interacting with customers	0.431	0.162	0.722
I pay attention to opinions of customers and even make friends with them	0.210	0.444	0.688
Cumulative variance %	25.011	49.178	72.948
Cronbach's alpha	0.82	0.79	0.813

Table III.
EFA of brand psychological ownership

Brand citizenship behaviors (Brand CB). Based on the perspectives of Burmann and Zeplin (2005) and Sun *et al.* (2007), this study develops a 16-item scale to measure employee brand citizenship behaviors. An example item of helping behaviors and brand consideration is, "To make our brand successful, I will treat customers as my family." An example item of brand sportsmanship is, "I can tolerate the inconvenience caused by enhancing brand value." An example item of self-development of brand enhancement is, "I am willing to enhance brand-centered skills constantly." All items of brand citizenship behaviors are listed in Table IV.

Customer satisfaction. A five-item scale is adopted from Fornell *et al.* (1996). An example item is, "I am satisfied with the service quality provided by this hotel." Cronbach's alpha of the scale is 0.830.

Control variables. Several variables that may influence the dependent variables are controlled. The control variables on the individual level are gender, age, education, and tenure. The control variable on the organizational level is hotel type.

Measurement reliability and validity

In order to examine the structures of the measurement scales, exploratory factor analysis (EFA) are utilized to reveal the underlying factors and the corresponding items. Then the scales are further examined with the survey data to reveal the fitness

Items	Factor loading		
	Helping behaviors and brand consideration	Brand sportsmanship	Self-development of brand enhancement
I regard customers as my family and solve their problems as I do mine	0.739	0.198	0.367
I solve problems of customers voluntarily to foster brand value	0.730	0.259	0.385
I voluntarily follow brand guidelines while servicing customers	0.716	0.315	0.360
I voluntarily follow brand standard processes without organizational monitoring	0.693	0.277	0.375
I voluntarily follow brand guidelines while solving customers' complaints	0.573	0.313	0.445
I express aggressive behaviors to satisfy customers and enhance brand value	0.567	0.332	0.420
I am willing to endorse the brand and voluntarily transmit brand value to newcomers or friends	0.187	0.794	0.335
I have trust and loyalty toward the brand	0.145	0.785	0.407
I tolerate inconveniences caused by brand-related activities to satisfy customers and enhance brand value	0.493	0.673	0.360
I never complain about inconveniences caused by brand-related activities	0.418	0.620	0.375
I voluntarily provide new information and ideas for the brand to enhance brand value	0.366	0.563	0.372
I strengthen my professional knowledge to foster brand value	0.333	0.118	0.812
I voluntarily understand needs of customers without organizational requirement	0.394	0.310	0.715
Regardless of positive or negative information, I voluntarily respond to customers' thoughts on my company	0.361	0.328	0.694
I am willing to endlessly enhance brand-related skills	0.292	0.359	0.608
Cumulative variance %	26.03	48.672	71.149
Cronbach's alpha	0.918	0.856	0.884

Table IV.
EFA of brand citizenship behaviors

through confirmatory factor analysis (CFA). Details of exploratory factor analysis and confirmatory factor analysis are discussed as follows.

EFA and CFA

The approaches of principal component analysis and orthogonal (VARIMAX) rotation are utilized by this study to conduct exploratory factor analysis. In organization-level analyses, items of brand-centered HRM are divided into two factors after EFA. Four

items which have cross-loadings are deleted by this study (reported in Appendix: Table AII). Factors of brand-centered HRM are named as brand-centered reward and training, and brand-centered evaluation and selection based on the meanings of items. As reported in Table II, Cronbach's alpha for two factors are 0.906 and 0.861 respectively. The cumulative variance of brand-centered HRM is 63.32 per cent, representing an acceptable level. Furthermore, this study also conducts a CFA to examine the fitness of two-factor brand-centered HRM. Results indicated that the fit is good ($\chi^2/df = 2.47$, GFI = 0.92, RMSR = 0.055, CFI = 0.97, IFI = 0.95, RMSEA = 0.09). In individual-level analyses, we conducted CFA and EFA both for brand psychological ownership and brand citizenship behaviors. As for exploratory factor analysis (EFA) of brand psychological ownership, one item which has cross-loadings was deleted (reported in Appendix: Table AIII). Items of brand psychological ownership are divided into three factors, including congruence between brand image and individuals, responsibility for maintaining brand image, and brand value effectiveness. As showed in Table III, Cronbach's alpha for three factors are 0.82, 0.79 and 0.813 respectively. The cumulative variance of brand psychological ownership is 72.948 per cent, an acceptable level. This study also conducts a confirmatory factor analysis (CFA) to examine the fitness of three-factor brand psychological ownership. Results indicate that the fit is great ($\chi^2/df = 2.34$, GFI = 0.97, RMSR = 0.028, CFI = 0.99, IFI = 0.99, RMSEA = 0.054). As for EFA of brand citizenship behaviors, one item which has cross-loadings is deleted (reported in Appendix: Table AXV). Items of brand citizenship behaviors are divided into three factors via exploratory factor analysis. Three factors of brand CB include helping behaviors and brand consideration, brand sportsmanship, and self-development of brand enhancement. As reported in Table IV, Cronbach's alpha for three factors are 0.918, 0.856 and 0.813 respectively. The cumulative variance of brand psychological ownership is 71.149 per cent, representing an acceptable level. This study also conducts a CFA to examine the fitness of three-factor brand citizenship behaviors. Results indicate that the fit is good ($\chi^2/df = 5.12$, GFI = 0.88, RMSR = 0.045, CFI = 0.98, IFI = 0.98, RMSEA = 0.089). Therefore, this study further investigates the relationships between factors of these constructs.

Common method variance

To attenuate the errors associated with common method variance caused, procedural remedies and statistical remedies are adopted according to Podsakoff *et al.* (2003). In procedural remedies, two methods are utilized by this study. First, this study collects the data of organization-level variable and individual-level variable from different sources. Second, this study allows the respondents to be anonymous and assures the respondents that they can answer the questions as honestly as possible. In statistical remedies, two methods are utilized by this study to attenuate bias of common methods variance caused by using simultaneous data in individual-level analyses. First, all individual-level items are concluded to one general factor, and the analytical results for fitness include: $\chi^2/df = 7.52$; GFI = 0.78; RMSR = 0.052, CFI = 0.97 IFI = 0.97 RMSEA = 0.107, suggesting that the fitness of the one-factor model is poor. Then all individual-level items are measured according to the proposed model; the analytical results for fitness are: $\chi^2/df = 3.18$, GFI = 0.88, RMSR = 0.039, CFI = 0.98, IFI = 0.99, RMSEA = 0.069, indicating that the fitness of the six-factor model (the

proposed model) is better than one-factor model. Second, based on Podsakoff *et al.* (2003), we compare the proposed model with a CMV model that allows the all indicators of six constructs to load on a latent construct (i.e. method construct) as well as all the research constructs (trait constructs). The analytical results for fitness of the CMV model are: $\chi^2/df = 2.83$, GFI = 0.90, RMSR = 0.038, CFI = 0.99, IFI = 0.99, RMSEA = 0.063. According to Richardson *et al.* (2009), the comparison of proposed model with CMV model requires a nested test. The fitness of CMV model is better than those of the proposed model, $\Delta\chi^2 (= 147.52)$ value is greater than the critical value ($\chi^2(df = 23, \alpha = 0.05) = 45.17$). However, in the CMV model, *T* values of some method loadings are not significant, which is not satisfactory in terms of convergent validity. While in the proposed model, *T* values of trait loadings are all significant. Although the threat to common method is not eliminated completely; however, the above-mentioned procedural and statistical remedies have already substantially reduced the problem of common method error.

Discriminate and convergent validity

As for discriminate and convergent validity, this study further utilizes the matrix phi to understand the extent to which a construct is truly distinct from other constructs. Based on Jöreskog and Sörbom (1981), they propose that two conceptually similar concepts are distinct if $PHI + 1.96 * \text{standardized error} < 1$. As reported in Appendix: Tables AIV and AV, the results show that the discriminate validity exists among constructs. Additionally, the purpose of convergent validity is to understand the degree to which measures of the same concept are correlated. According to the standardized λ and *T* value, each *T* value of latent variables reach the significant level of 0.01, indicating every construct has convergent validity.

Analytical procedure

Our research framework involves relationship of constructs at both individual level and organization level. Also, the data are hierarchical, with the supervisors, employees, and customers nested in different hotels. Hierarchical linear modeling (HLM) can account for the nested nature of the data and estimate the impacts of factors at different levels simultaneously (Raudenbush and Bryk, 2002). It enables the simultaneous estimation of relationships between variables at different level. Therefore, the analyses of HLM are conducted to test hypotheses on how variables measured at the organizational level (i.e. brand-centered HRM) affect variables at individual level (i.e. brand PO and brand CB). See the Appendix for mathematical models which are used in this study.

Results

Descriptive analyses

A total of 453 completed questionnaires are returned on the individual employee level. Among these employees, 177 are male employees (39 per cent) and 276 are female (61 per cent). Of the respondents, 46.9 per cent are married. Most respondents were middle-aged (26-35, 36.8 per cent). Senior high school graduates are 44.6 per cent; college graduates are 35.9 per cent. Furthermore, 172 completed questionnaires are returned on the organizational level. Among these supervisors, 88 are male supervisors (51.2 per cent) and 84 are female (48.8 per cent). 107 (62.2 per cent) of these respondents

are married. The age of most supervisors are in the range of 36 to 45 (63, 36.6 per cent). Most supervisors (87, 50.6 per cent) have a college degree.

Correlations

As reported in Table V, at the individual level, brand psychological ownership is significantly related to brand citizenship behaviors ($r = 0.82^{**}$, $p < 0.01$). At the organizational level, brand-centered HRM is significantly associated with brand psychological ownership ($r = 0.543^{**}$, $p < 0.01$) and brand citizenship behaviors ($r = 0.549^{**}$, $p < 0.01$). The construct, brand citizenship behaviors, is significantly related to customer satisfaction ($r = 0.687^{**}$, $p < 0.01$). These correlation results are consistent with the hypotheses proposed by this study. This study further investigates the relationships between factors of brand-centered HRM, brand psychological ownership, and brand organizational citizenship behavior.

Correlations between dimensions of the constructs

This study further conducts correlation analyses between dimensions of the constructs (reported in Table VI). At the individual level, all dimensions of brand psychological ownership are positively associated with all dimensions of brand citizenship behaviors. That is, the coefficient range of correlations between dimensions is from 0.605 ($p < 0.01$) to 0.796 ($p < 0.01$). The results are consistent with individual-level hypotheses proposed by this study. Based on organization-level analyses, all dimensions of brand-centered HRM are positively associated with all dimensions of brand psychological ownership and brand citizenship behaviors. That is, the coefficient range of correlations between dimensions is from 0.357 ($p < 0.1$) to 0.974 ($p < 0.01$). The results are consistent with cross-level hypotheses proposed by this study.

Null model analyses

This study evaluates a null model in which no predictors are evaluated on either the individual level or organizational level. According to the results presented in Table VII, the residual variances of the intercepts of brand psychological ownership ($\tau_{00} = 0.069$, $p < 0.001$), including congruence between brand image and individuals ($\tau_{00} = 0.072$, $p < 0.001$), responsibility for maintaining brand image ($\tau_{00} = 0.075$, $p < 0.001$), and brand value effectiveness ($\tau_{00} = 0.066$, $p < 0.001$), are all significant. The residual variances of the intercepts of brand citizenship behaviors ($\tau_{00} = 0.097$, $p < 0.001$), including helping behaviors and brand consideration ($\tau_{00} = 0.089$, $p < 0.001$), brand sportsmanship ($\tau_{00} = 0.101$, $p < 0.001$), and self-development of brand enhancement ($\tau_{00} = 0.102$, $p < 0.001$), are all significant. That is, there exists heterogeneity of relationships explored in the proposed model among different organizations. Therefore, it is more appropriate to investigate the relationships among brand-centered HRM, brand psychological ownership, and brand citizenship behaviors through multiple-level analyses.

Hypotheses examination

H1 investigates the relationships between brand psychological ownership and brand organizational citizenship behaviors. Based on results in Table VIII, brand psychological ownership positively affects brand citizenship behaviors

Table V.
Means, standard
deviation, and
correlations of research
constructs

Variables	Mean	SD	(1)	(2)	(3)	(4)	(5)
<i>Individual level</i>							
(1) Brand psychological ownership	3.9779	0.59351	1				
(2) Brand citizenship behaviors	3.9749	0.60438	0.82**	1			
(3) Gender	1.6181	0.48639	0.13**	0.18**	1		
(4) Age	2.4967	1.16858	0.13**	0.15**	0.81	1	
(5) Education	2.3223	0.84002	-0.24	-0.49	-0.83	-0.256**	1
<i>Organizational level</i>							
(1) Brand-centered HRM	3.9956	0.40286	1				
(2) Brand psychological ownership	4.1640	0.27431	0.543**	1			
(3) Brand citizenship behaviors	4.1994	0.34083	0.549**	0.952**	1		
(4) Customer satisfaction	3.9873	0.32196	0.243*	0.699**	0.687**	1	
(5) Type	0.0769	0.27175	-0.240	-0.106	-0.077	0.076	1

Notes: * $p < 0.1$; ** $p < 0.01$

Dimensions	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Individual level</i>												
(1) Helping behaviors and brand consideration	4.0522	0.62506	1									
(2) Brand sportsmanship	3.8512	0.64220	0.763***	1								
(3) Self-development of brand enhancement	4.0259	0.66852	0.796***	0.722***	1							
(4) Congruence between brand image and individual	4.0670	0.66273	0.725***	0.696***	0.671***	1						
(5) Responsibility of maintaining brand image	3.9529	0.69994	0.691***	0.685***	0.657***	0.730***	1					
(6) Brand value effectiveness	3.9043	0.67849	0.649***	0.631***	0.605***	0.677***	0.643***	1				
(7) Gender	1.6181	0.48639	0.135***	0.095***	0.122***	0.141***	0.140***	0.177***	1			
(8) Age	2.4967	1.16858	0.081	0.124***	0.132***	0.117***	0.137***	0.150***	0.081	1		
(9) Education	2.3223	0.84002	0.018	-0.077	-0.014	-0.022	-0.034	-0.075	-0.083	-0.256***	1	

(continued)

Table VI.
Means, standard deviation, and correlations of dimensions of research constructs

Table VI.

Dimensions	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Organizational level</i>												
(1) Brand-centered reward and training	3.9265	0.44134	1									
(2) Brand-centered selection and evaluation	3.9916	0.39296	0.974***	1								
(3) Congruence between brand image and individuals	4.2767	0.31150	0.498***	0.555**	1							
(4) Responsibility of maintaining brand image	4.1621	0.30914	0.503***	0.505**	0.835***	1						
(5) Brand value	4.0917	0.30016	0.357*	0.418**	0.625**	0.763***	1					
(6) Helping behaviors and brand consideration	4.2593	0.33517	0.422**	0.539**	0.899***	0.879***	0.755***	1				
(7) Brand sportsmanship	4.0239	0.35342	0.606***	0.565**	0.698***	0.845***	0.797***	0.775***	1			
(8) Self-development of brand enhancement	4.2565	0.34964	0.435**	0.533**	0.816***	0.876***	0.688***	0.893***	0.759***	1		
(9) Customer satisfaction	3.9873	0.32196	0.222	0.279	0.552**	0.660***	0.706***	0.651***	0.636***	0.569**	1	
(10) Type	2.8077	0.56704	- 0.251	- 0.160	- 0.046	- 0.113	- 0.133	0.03	- 0.147	- 0.105	0.076	1

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Dependent variables	Fixed effect			Random effect		
	Intercept γ_{00}	SE	<i>P</i>	τ_{00}	σ^2	<i>P</i>
Brand psychological ownership	4.123*	0.063	0.000	0.069*	0.287	0.000
Congruence between brand image and individuals	4.243*	0.063	0.000	0.072*	0.349	0.000
Responsibility for maintaining brand image	4.124*	0.065	0.000	0.075*	0.395	0.000
Brand value effectiveness	4.058*	0.062	0.000	0.066*	0.373	0.000
Brand organizational citizenship behaviors	4.145*	0.071	0.000	0.097*	0.239	0.000
Helping behaviors and brand consideration	4.229*	0.067	0.000	0.089*	0.286	0.000
Brand sportsmanship	4.011*	0.071	0.000	0.101*	0.301	0.000
Self-development of brand enhancement	4.223*	0.072	0.000	0.102*	0.328	0.000

Note: * $p < 0.01$

Table VII.
Null model

Independent variable	Models			
	Model-1 Brand psychological ownership	Model-2 Brand citizenship behavior	Model-3 Brand citizenship behavior	Model-4 Customer satisfaction
<i>Individual level</i>				
Intercept	4.148***	4.159***	4.018***	3.985***
Brand psychological ownership			0.729***	
Gender	0.108**	0.016	-0.023	
Age	0.025	0.018	0.001	
Education	-0.084*	-0.60***	0.008	
<i>Organizational level</i>				
Brand-centered HRM	0.345***	0.429***	0.192***	
Brand organizational citizenship Behavior				0.688***
Type	0.006	-0.031	-0.008	0.143
Deviance ^a	723.54	665.51	270.99	1857.75

Notes: ^aDeviance is a measure of model fit. Deviance = $-2 \times$ log-likelihood of the full maximum-likelihood estimate; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; Organizations $n = 26$; Employees $n = 453$; Customers $n = 933$

Table VIII.
Hierarchical linear modeling results of the proposed model

($\gamma_{10} = 0.729^{***}$, $p < 0.01$), which shows that *H1* is supported. In cross-level analyses, brand-centered HRM positively affects brand psychological ownership ($\gamma_{01} = 0.345^{***}$, $p < 0.01$) and brand citizenship behaviors ($\gamma_{01} = 0.429^{***}$, $p < 0.01$), revealing that *H2* and *H3* are supported. Aggregated brand CB positively affects customer satisfaction ($\gamma_{01} = 0.688^{***}$, $p < 0.01$), which indicates that *H4* is supported.

Cross-level mediating effect

To investigate the relations in details, this study further investigates the cross-level mediating effect of brand psychological ownership between brand-centered HRM and brand OCB through the three analytical steps of Baron and Kenny (1986). The first step is to confirm the effect of brand-centered HRM on brand CB. The second step is to examine the effect of brand-centered HRM on brand psychological ownership. The third step is to examine whether the effect of brand-centered HRM on brand CB became insignificant or reduced when both brand-centered HRM and brand psychological ownership are jointly used as predictors of brand CB. If that is true, the mediating effect of brand psychological ownership is confirmed. We conduct these three-step analyses. As shown in Table VIII, first, the results of Model-1 reveal that brand-centered HRM is significantly correlated with brand psychological ownership (PO) and the deviance is 723.54. Second, the results of Model-2 show that brand-centered HRM is significantly correlated with brand CB and the deviance is 665.51. Third, the results of Model-3 show that both brand-centered HRM and brand PO are significantly correlated with brand OCB and the deviance is 270.99. From the variation of deviance in the three models, the value change of deviance is 452.55 (decreased from 723.54 to 270.99) after a mediating variable (i.e. brand psychological ownership) is added. The level of change reaches a significant level of 0.005 ($452.55 > X^2(1)0.005 = 7.879$). Furthermore, the effect of brand-centered HRM on brand CB reduced from 0.429 to 0.192. Based on the aforementioned results, brand psychological ownership partially mediates the relationship between brand-centered HRM and brand CB, revealing that brand psychological ownership was a cross-level mediator in the relation between brand-centered HRM and brand citizenship behaviors.

Detailed analyses of the research model

The purpose of the detailed analyses of the relationships is to reveal the differential effects of the influencing factors (e.g. brand-centered HR practices) on the different aspects of the consequences (e.g. brand citizenship behaviors). By conducting detailed analysis, this research could shed more light on managerial implications.

Effects of brand PO on brand CB

After factor analyses, we investigate the relationships between factors of brand psychological ownership and brand citizenship behaviors. This study examines an individual-level model including these factors, with no predictors specified for the organizational-level variables. As for factors of two dimensions reported in Table IX, congruence between brand image and individuals positively affects helping behaviors and brand consideration ($\gamma_{10} = 0.335, p < 0.01$), brand sportsmanship ($\gamma_{10} = 0.278, p < 0.01$), and self-development of brand enhancement ($\gamma_{10} = 0.311, p < 0.01$). Responsibility for maintaining brand image positively affects helping behaviors and brand consideration ($\gamma_{20} = 0.200, p < 0.01$), brand sportsmanship ($\gamma_{20} = 0.261, p < 0.01$), and self-development of brand enhancement ($\gamma_{20} = 0.201, p < 0.01$). Furthermore, brand value effectiveness positively affects helping behaviors and brand consideration ($\gamma_{30} = 0.206, p < 0.01$), brand sportsmanship ($\gamma_{30} = 0.175, p < 0.01$), and self-development of brand enhancement ($\gamma_{30} = 0.151, p < 0.05$).

Independent variable	Model-1	Models Model-2	Model-3
	Helping behaviors and brand consideration	Dependent variable Brand sportsmanship	Self-development of brand enhancement
Intercept	4.245 ***	4.019 ***	4.236 ***
Congruence between brand image and individuals	0.335 ***	0.278 ***	0.311 ***
Responsibility for maintaining brand image	0.2 ***	0.261 ***	0.201 ***
Brand value effectiveness	0.206 ***	0.175 ***	0.151 **
Control variables			
Gender	-0.074 *	-0.096 **	-0.028
Age	-0.007	-0.037	0.031
Education	0.013	-0.037	0.005
Deviance	462.84	502.70	586.58

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; Organizations $n = 26$; Employees $n = 453$; Customers $n = 933$

Table IX.
Hierarchical linear modeling result: brand PO on brand CB

Aggregation of the constructs

To investigate cross-level analyses, this study examines the validity of organization-level variables, including brand-centered HRM and aggregated brand CB. Interrater agreement is assessed by *rwg* (Kozlowski and Hults, 1987). As reported in Table X, median *rwg* values for brand-centered HRM and its factors are 0.977, 0.947, and 0.949, respectively. Median *rwg* values for brand CB and its factors are 0.990, 0.989, 0.987 and 0.986, respectively. Median *rwg* value for customer satisfaction is 0.993. All the *rwg* values are above the acceptable level of 0.7. Furthermore, this study also measures intraclass correlation (ICC (1)) and reliability of group means (ICC (2)) for brand psychological ownership, brand citizenship behaviors and their factors (Raudenbush and Bryk, 2002). As reported in Table XI, ICC (1) values for brand psychological ownership and its factors are 0.194, 0.171, 0.160, and 0.150, and their ICC (2) values are 0.862, 0.843, 0.832, and 0.822. Furthermore, ICC (1) values for brand CB and its factors are 0.289, 0.238, 0.251, and 0.237, and their ICC (2) values are 0.913, 0.89, 0.897, and 0.889. Values of ICC (1) and ICC (2) for customer satisfaction are 0.194 and 0.862, respectively. All the ICC (1) and ICC (2) values are above the acceptable level

	Median of Rwg
Brand-centered HRM	0.977163
Brand-centered training and reward	0.947177
Brand-centered evaluation and selection	0.949188
Brand organizational citizenship behaviors	0.990196
Helping behaviors and brand consideration	0.988958
Brand sportsmanship	0.987395
Self-development of brand enhancement	0.985714
Customer satisfaction	0.992822

Table X.
Values of r_{wg}

reported in the literature (Schneider *et al.*, 1998). Therefore, it is suitable to form the aggregated level constructs.

Effects of brand-centered HRM on brand PO and brand CB

As for cross-level analyses, this study investigates the effects that brand-centered HRM at the organizational level had on variables at the individual level. According to results reported in Table XII, brand-centered reward and training has positive effect on congruence between brand image and individuals ($\gamma_{01} = 0.21, p < 0.05$), and responsibility for maintaining brand image ($\gamma_{01} = 0.272, p < 0.05$). Brand-centered evaluation and selection has positive effect on congruence between brand image and individuals ($\gamma_{02} = 0.234, p < 0.05$). Furthermore, brand-centered reward and training positively affects brand sportsmanship ($\gamma_{01} = 0.292, p < 0.01$). Brand-centered evaluation and selection positively affects helping behaviors and brand consideration ($\gamma_{02} = 0.22, p < 0.01$) and self-development of brand enhancement ($\gamma_{02} = 0.329, p < 0.01$).

Effects of organization-level brand CB on customer satisfaction

We analyze the effect of brand citizenship behaviors on customer satisfaction at the organizational level. Employees' brand citizenship behaviors are aggregated to their corresponding organizations to investigate the effects of organization-level brand CB on customer satisfaction. The results of hierarchical linear modeling presents in model-7 of Table XII. Helping behaviors and brand consideration ($\gamma_{01} = 0.506, p < 0.05$) and brand sportsmanship ($\gamma_{02} = 0.327, p < 0.05$) have positive effects on customer satisfaction. However, self-development of brand enhancement does not have significant effect on customer satisfaction.

Discussions

Prior research on employee brand behaviors has mostly adopted the analysis method on individual-level analysis, such as regression analysis. Yet, the internal branding management often involves interactions at least two organizational levels, and the research data are hierarchical in nature, in that the individuals are nested within organizations. Pooled regression on multilevel present statistical problems and the results are biased (Raudenbush and Bryk, 2002). Therefore, this study proposes a multilevel framework to investigate individual level and organizational level

	ICC(1)	ICC(2)
Brand psychological ownership	0.19382	0.862086
Congruence between brand image and individuals	0.171021	0.842864
Responsibility for maintaining brand image	0.159574	0.831557
Brand value effectiveness	0.150342	0.821446
Brand organizational citizenship behaviors	0.28869	0.913437
Helping behaviors and brand consideration	0.237333	0.89
Brand sportsmanship	0.251244	0.897164
Self-development of brand enhancement	0.237209	0.889933
Customer satisfaction	0.19382	0.862086

Table XI.
Values of ICC (1) and
ICC (2)

Independent variable	Models						
	Model-1 Congruence between brand image and individuals	Model-2 Responsibility for maintaining brand image	Model-3 Brand value effectiveness	Model-4 Dependent variable Helping behaviors and brand consideration	Model-5 Brand sportsmanship	Model-6 Self-development of brand enhancement	Model-7 Customer satisfaction
<i>Individual level</i>							
Intercept	4.243***	4.118***	4.056***	4.098***	3.876***	4.088***	3.987***
Congruence between brand image and individuals							
Responsibility for maintaining brand image				0.299***	0.231***	0.282***	
Aggressive transmitting of brand value				0.222***	0.279***	0.243***	
Gender	0.089*	0.142**	0.155**	0.227***	0.216***	0.183***	
Age	0.043	0.007	0.019	-0.016	-0.087	0.002	
Education	-0.067*	-0.085*	-0.065*	-0.009	-0.037	0.029	
<i>Organizational level</i>				0.02	-0.033	0.009	
Brand-centered training and reward	0.21**	0.272**	0.199	0.01	0.292***	-0.061	
Brand-centered evaluation and selection	0.234**	0.113	0.113	0.22***	-0.033	0.329***	
Aggregated brand OCB							0.506*
Helping behaviors and brand consideration							0.327***
Brand sportsmanship							-0.161
Self-development of brand enhancement	0.126	0.056	0.036	0.11***	0.121***	0.014	0.116
Types	825.98	887.21	864.63	424.33	469.67	558.89	1854.12
Deviance							

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; Organizations $n = 26$; Employees $n = 453$; Customers $n = 933$

Table XII.
Hierarchical linear modeling results of the proposed model (detailed relationships between research constructs)

antecedents of employee brand attitude and behaviors. Consequently, the relation between employee brand behavior and customer satisfaction is also investigated.

Based on analytical results, *H1-H4* are all supported, thus showing that employees' brand behaviors which contribute to customer satisfaction are influenced by individual-level and organization-level antecedents. First, brand psychological ownership positively affects brand citizenship behaviors, which reveal employees with brand psychological ownership can have altruistic brand spirit and then display brand citizenship behaviors that may strengthen brand values. Thus, our findings are consistent with the arguments of Pierce *et al.* (2001) and social exchange theory (Eisenberger *et al.*, 1986) that extra-role altruistic behaviors are out of high committing and self efficacy mental state. Second, brand-centered HR practices regarded as a strategy to foster brand value through employees, positively affects brand psychological ownership and brand citizenship behaviors. The results show that an organization can help employees strongly identify themselves to the brand and trigger altruistic spirit and extra-role brand behavior via brand-centered HRM, which is supportive and high-commitment by its nature, since employees have to be treated that way to live the brand. The result is consistent with the arguments of Allen *et al.* (2003) and Whitener (2001), who assert that supportive HR practices can make employees perceive organizational support and trigger their altruistic spirit and brand citizenship behaviors. Third, this study finds that employee's brand citizenship behaviors contribute to customer satisfaction, an important market performance metric of the brand. Thus, our finding is consistent with the arguments of Sun *et al.* (2007), who argue that employees with service-oriented organizational citizenship behaviors might serve customers beyond formal role requirements. Furthermore, we also find that brand psychological ownership is a cross-level mediator, indicating that employees with brand psychological ownership are more willing to express brand citizenship behaviors fostering customer satisfaction when an organization adopts brand-centered HRM to strengthen brand value. This result is consistent with Whitener (2001) who argues that employees' perceptions are important in the process of HR practices.

Detailed discussion

This study further investigates the relationships among the factors of brand-centered HRM, brand psychological ownership, and brand citizenship behaviors. The results present that congruence between brand image and individuals is positively associated with three factors of brand citizenship behaviors: helping behaviors and brand consideration, brand sportsmanship, and self-development of brand enhancement. It shows that a psychological feeling of the brand makes the employee to see the brand as an extension of his/her own identity, thus will strive to act the brand. Furthermore, responsibility for maintaining brand image stemmed from psychological ownership is also positively related to three factors of brand citizenship behaviors, which is consistent with the arguments of Van Dyne and Pierce (2004). Van Dyne and Pierce contend that feeling of ownership and control toward an object may trigger a sense of responsibility, that is, employees with brand psychological ownership may feel responsible for transmitting brand value (e.g. maintain brand image), having brand-oriented altruistic spirit (Vande Walle *et al.*, 1995), and then producing brand citizenship behaviors. Brand value effectiveness is also positively associated with three factors of brand citizenship behaviors, which is consistent with the perspectives

proposed by Pierce *et al.* (2001) that “ownerships and the rights that come with it allow individuals to explore and alter their environment, thus satisfying their innate need to be efficacious”. These results indicate that employees with brand psychological ownership could produce three cognitive and affective effects: regarding brand image as the extension of self image, feeling responsible for protecting and maintaining brand image, and feeling efficacious that they have rights to promote brand value. Employees with brand psychological ownership are likely to produce three behavioral effects: helping behaviors and following brand guidelines while interacting with their stakeholders, tolerating the inevitable inconveniences caused by organizational brand activities, and improving their brand-centered knowledge, skills, and abilities voluntarily.

We examine the detailed effects of brand-centered HR on employee’s brand psychological ownership. The results show that brand-centered reward and training programs have significant effects on two aspects of employee brand psychological ownership: congruence between brand image and individuals, and responsibility for maintaining brand image. Also, we find congruence between brand image and individuals could be enhanced by brand-centered evaluation and selection. That is, an organization could select proper employees and then make them feel that their images are consistent with the brand via brand-centered evaluation and selection (Aurand *et al.*, 2005; Girod, 2005). However, brand value effectiveness (e.g. employees feel they can foster brand value effectively) is not significantly affected by brand-centered HR practices, although the direction of effects seem to be as predicted. To make employees feel efficacy towards enhancing brand value seems to need managerial actions more than HR practices.

We argue that brand-centered HR practices can produce a supportive work environment where employees are motivated to have brand altruistic spirit and display brand citizenship behaviors, which enhance the brand value. Results show that brand sportsmanship is positively affected by brand-centered training and reward. Furthermore, helping behaviors and brand consideration, and self-development of brand enhancement are positively affected by brand-centered evaluation and selection. Nevertheless, helping behaviors and brand consideration, and self-development of brand enhancement are not affected by brand-centered training and reward. The results represent that an organization could not make employees tolerate brand-induced inconveniences via brand-centered evaluation and selection; yet, employees can tolerate inconvenience related to the brand by brand-centered training and reward. To sum it up, factors of brand psychological ownership and brand citizenship behavior are mostly positively affected by practices of brand-centered HR practices, thus showing that brand-centered HR practices are an effective strategy which can enhance competitive advantage.

Implications

Internal branding focuses mostly on making employees identify with the corporate brands and have a customer-focused attitude, thus contributing to customer satisfaction (Aurand *et al.*, 2005; Gotsi and Wilson, 2001). Therefore, it is important for researchers to investigate relationships among organizational brand practices, employee brand cognitions, employee brand behaviors, and customer satisfaction. This study sheds some light on how to foster brand-related positive attitude and

behaviors of employees. First, brand-centered HR practices could produce brand psychological ownership and brand citizenship behaviors of employees. Therefore, firms intending to build brand strength through employees should fine tune its HR practices via pro-brand training and rewarding, selection and evaluations. For instance, employees may feel congruence between brand image and their image when practices of brand-centered evaluation and selection are adopted. In practical practices, HR managers may select employees whose personal images are consistent with the corporate image in order to create a consistent brand image perceived by customers. It is the reason that hotels recruit employees with smiling faces, contributing to the brand image proposed by senior managers. These HR practices would help employees to feel personally engaged, responsible for the brand, although not so effective in facilitating the efficacy of brand value transmitting, which may require efforts other than HR activities, such as better products or effective external marketing. Second, brand-centered HR practices could also help to promote employee's brand altruistic behaviors, such as helping behaviors and brand consideration, brand sportsmanship, and self-development of brand enhancement. For example, HR managers may make employees' personal values transformed through brand-centered training (e.g. formal training and e-learning), thus contributing to employees' brand citizenship behaviors, such as brand sportsmanship. Yet, the effects are not as strong as brand-centered HR practices on brand psychological ownership. Also, the effects on brand citizenship behaviors are mediated by the effects on brand psychological ownership. Therefore, HR managers may have to strengthen the linkage between brand psychological ownership on brand citizenship behaviors to help bring the altruistic behaviors. Third, most aspects of brand citizenship behaviors are affected by brand-centered HR practices, however, tolerance of inconvenience due to brand-related affairs could not be promoted by selection tools, but by effective training and reward. Differential effects of HR practices on employees' brand citizenship behaviors suggest that proper application of HR practices is important. Fourth, brand citizenship behaviors have significant positive effects on customer satisfaction, especially, employees' helping behaviors and brand consideration and their altruistic brand behavior. These two aspects of brand citizenship behaviors could be facilitated by brand-centered HR practices, such as effective selection, training, rewarding and evaluations.

Contributions

Five important contributions of this research should be noted. First, a new construct, brand psychological ownership, has been first explored by this research, which contributes to the understanding of mental process of internal branding success. In this study, the construct is first defined and measurement developed through literature review as well as the field study, so that the academics and practitioners could use the scale to further study this phenomenon. Also, the antecedents and consequences of the new constructs are examined; the results can be helpful to the branding research. Second, measurements of brand citizenship behaviors suggested by Burmann and Zeplin (2005) are modified and its effects on customer satisfaction are empirically tested. The results can shed some light on fostering altruistic brand behavior. Third, this study explicitly delineates the dimensions of brand-centered HR practices and investigates their influences on internal branding, which present a more comprehensive understanding of internal brand management. Fourth, this study

uses two types of data from supervisors and employees which could attenuate bias of common method variance. Fifth, the multilevel approach adopted by this study allows us to investigate the impact of the predictors at different levels on the individual-level effects while keeping the organizational level of analyses for the predictors, thus estimates obtained are less biased than the traditionally used single level analysis method.

Limitations and future study

Several limitations of this study have to be considered. First, the data in this research are collected from 26 hotels not randomly selected from Taiwan markets; therefore, the generalizability of research results to the whole industry or other industries are limited. In the future, data could be collected using a random sample and/or from different industries to further examine the differences. Second, Schwab (2005) argued that researchers should use longitudinal data to examine causal relationships to reduce the CMV bias. However, the cross-sectional data utilized by this study could only explain a phenomenon at one period of time thus longitudinal data and designs of experiment or quasi-experiment may be utilized in a future study. Third, this study only utilizes two-levels of hierarchical linear modeling for the analysis, while a future study may utilize three-level analyses (e.g. brand-centered culture, strategy etc.) to investigate the relations between brand-centered culture and strategy, brand-centered HRM, brand psychological ownership, and brand citizenship behaviors comprehensively. Fourth, this study only investigates the relation between brand psychological ownership and brand citizenship behaviors in individual-level analyses, and a future study may investigate relations between the research constructs with other organizational constructs, such as person-brand fit, brand psychological ownership, brand commitment, and brand citizenship behaviors to obtain a more complete understanding of internal branding.

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Appendix

The following formulations are mathematical models used in this study.

1. Null model (corresponding to Table VII)

Level-1 Model

$$Y_{ij} = B_{0j} + \varepsilon_{ij}$$

Level-2 Model

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

Note: $Y_{ij} \sim$ Brand PO, Factors of Brand PO, Brand CB, Factors of Brand CB, corresponding to individual i of hotel j .

2. Model formulation of Table VIII

(1) For Model-1: Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{gender}) + \gamma_{20}^*(\text{age}) + \gamma_{30}^*(\text{education}) + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{brand-centered HRM}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Brand PO corresponding to individual i of hotel j .

(2) For Model-2: Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{gender}) + \gamma_{20}^*(\text{age}) + \gamma_{30}^*(\text{education}) + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{brand-centered HRM}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Brand CB corresponding to individual i of hotel j .

(3) For Model-3: Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{brand PO}_{ij}) + \gamma_{20}^*(\text{gender}) + \gamma_{30}^*(\text{age}) + \gamma_{40}^*(\text{education}) + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{brand-centered HRM}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Brand CB corresponding to individual i of hotel j .

(4) For Model-4: Level-1

$$Y_{ij} = B_{0j} + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{organization-level brand CB}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Customer Satisfaction corresponding to individual i of hotel j

3. Model formulation of Table IX

Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{brand PO}_{ij}) + \gamma_{20}^*(\text{gender}) + \gamma_{30}^*(\text{age}) + \gamma_{40}^*(\text{education}) + \varepsilon_{ij}$$

Level-2 Model

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

Note: $Y_{ij} \sim$ Factor of brand CB corresponding to individual i of hotel j

Brand PO_{ij} \sim Factor of brand PO corresponding to individual i of hotel j

4. Model formulation of Table XII
(1) For Model-1 to Model-3. Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{gender}) + \gamma_{20}^*(\text{age}) + \gamma_{30}^*(\text{education}) + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{brand-centered HRM}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Factor of brand CB corresponding to individual i of hotel j
Brand-centered HRM $_j \sim$ Factors of brand-centered HRM of hotel j

(2) For Model-4 to Model-6. Level-1

$$Y_{ij} = B_{0j} + \gamma_{10}^*(\text{brand PO}_{ij}) + \gamma_{20}^*(\text{gender}) + \gamma_{30}^*(\text{age}) + \gamma_{40}^*(\text{education}) + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{brand-centered HRM}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Factor of brand CB corresponding to individual i of hotel j
Brand PO $_{ij} \sim$ Factor of brand PO corresponding to individual i of hotel j
Brand-centered HRM $_j \sim$ Factors of brand-centered HRM of hotel j

(3) For Model-7. Level-1

$$Y_{ij} = B_{0j} + \varepsilon_{ij}$$

Level-2

$$B_{0j} = \gamma_{00} + \gamma_{01}^*(\text{organization-level brand CB}_j) + \gamma_{02}^*(\text{type}) + u_{0j}$$

Note: $Y_{ij} \sim$ Customer Satisfaction corresponding to individual i of hotel j
Organization-level brand CB $_j \sim$ Factors of organizational level CB of hotel j

Table AI.
Customer-level questionnaires

Customer-level	Items
Customer satisfaction	<p>I am satisfied with the service quality provided by this hotel</p> <p>The services and products provided by this hotel are better than my expectations</p> <p>The service provided by this hotel is better than service in my idea</p> <p>I think I will visit this hotel again</p> <p>I am willing to recommend this hotel to my relatives and friends</p>

Organization-level	Items
Brand-centered HRM (supervisors)	<p>Our company compensates employees for providing brand-related creativity and information</p> <p>When employees display behaviors fostering brand value, our company gives employees formal rewards</p> <p>When the market share of the brand enhances, our company rewards employees who participate in brand-related activities</p> <p>Our company makes newcomers understand brand-related value and spirit through training</p> <p>Our company often transmits brand-related value through formal communication platform</p> <p>Our company makes personal value and behaviors of employees consistent with brand value through training courses</p> <p>Our company considers personal traits of applicants to recruit employees with person-brand fit</p> <p>Our company considers personal value of applicants to recruit employees with person-brand fit</p> <p>Our company considers employees' brand-oriented behaviors in the process of evaluation</p> <p>The brand image may help our company recruit appropriate employees while recruiting newcomers</p> <p>Our company makes employees compare their behaviors with a brand-related standard via self-evaluation or colleague-evaluation</p> <p>Our company focuses on cultivating brand-related talents</p> <p>Our company often communicates brand-related spirit, content, and value while developing new products or services</p>
Deleted items ^a	<p>When employees express positive brand behaviors, our company gives employees informal reward</p> <p>The HR department may design some approaches which make brand values communicated via informal channels</p> <p>In the job training, our company transmits the skills of service to employees, and makes employees positive brand behaviors</p> <p>Our company regularly assesses employees' contribution toward the brand value</p>

Table AII.
Organization-level questionnaires

Note: ^aAfter confirmatory factor analysis, four items are deleted because of cross-loadings

Individual-level	Items
Brand psychological ownership (employees)	<p>I am willing to implement brand value because I feel my personal value is consistent with brand value</p> <p>I hope family and friends feel that my image is consistent with the brand image</p> <p>I hope my customers feel that my service consistent with the brand image</p> <p>I feel I am praised when the brand is praised</p> <p>I defend the brand image when others criticize it</p> <p>When others criticize the brand, I will improve defects fundamentally</p> <p>I often transmit brand positive value to my friends and family</p> <p>I can successfully transmit the brand value in the process of interacting with customers</p> <p>I pay attention to opinions of customers and even make friends with them</p>
Deleted item ^a	
Brand citizenship behaviors (employees)	<p>I like the personality of brand a lot</p> <p>I regard customers as my family and solve their problems as I do mine</p> <p>I solve problems of customers voluntarily to foster brand value</p> <p>I voluntarily follow brand guidelines while servicing customers</p> <p>I voluntarily follow brand standard processes without organizational monitoring</p> <p>I voluntarily follow brand guidelines while solving customers' complaints</p> <p>I express aggressive behaviors to satisfy customers and enhance brand value</p> <p>I am willing to endorse the brand and voluntarily transmit brand value to newcomers or friends</p> <p>I have trust and loyalty toward the brand</p> <p>I tolerate inconveniences caused by brand-related activities to satisfy customers and enhance brand value</p> <p>I never complain about inconveniences caused by brand-related activities</p> <p>I voluntarily provide new information and ideas for the brand to enhance brand value</p> <p>I strengthen my professional knowledge to foster brand value</p> <p>I voluntarily understand needs of customers without organizational requirement</p> <p>Regardless of positive or negative information, I voluntarily respond to customers' thoughts on my company</p> <p>I am willing to endlessly enhance brand-related skills</p>
Deleted item ^a	<p>In order to defend brand value, I always express aggressive behaviors in order to solve customers' complaints</p>

Table AIII.
Individual-level
questionnaires

Note: ^aAfter confirmatory factor analysis, this item is deleted because of cross-loadings

Factor	Indicator	Standardized λ	Standardized T
Congruence between brand image and individuals	X1	0.77	NA
	X2	0.77	16.16
	X3	0.77	16.02
Responsibility for maintaining brand image	X4	0.81	NA
	X5	0.75	17.18
	X6	0.78	17.99
Brand value effectiveness	X7	0.74	NA
	X8	0.76	15.71
	X9	0.74	15.26
Helping behaviors and brand consideration	X10	0.79	NA
	X11	0.83	19.82
	X12	0.83	19.99
	X13	0.80	18.85
	X14	0.77	18.15
	X15	0.82	19.48
Brand sportsmanship	X16	0.74	NA
	X17	0.68	14.23
	X18	0.73	15.31
	X19	0.82	17.41
	X20	0.82	17.44
Self-development of brand enhancement	X21	0.76	NA
	X22	0.79	17.55
	X23	0.85	19.41
	X24	0.83	18.43

Table AIV.
Standardized λ and T

Factors	Congruence between brand image and individuals	Responsibility for maintaining brand image	Brand value effectiveness	Helping behaviors and brand consideration	Brand sportsmanship	Self- development of brand enhancement
<i>Congruence between brand image and individuals</i>						
PH	0.59					
Standardized Error	(0.06) ^b					
<i>T</i>	9.19 ^c					
<i>Responsibility for maintaining brand image</i>						
PH	0.52	0.65				
Standardized error	(0.05)	(0.06)				
<i>T</i>	10.52	10.02				
<i>Brand value effectiveness</i>						
PH	0.46	0.54	0.55			
Standardized error	(0.05)	(0.05)	(0.06)			
<i>T</i>	9.91	10.79	18.45			
<i>Helping behaviors and brand consideration</i>						
PH	0.46	0.53	0.48	0.62		
Standardized error	(0.05)	(0.05)	(0.05)	(0.06)		
<i>T</i>	10.06	10.94	10.35	9.95		
<i>Brand sportsmanship</i>						
PH	0.42	0.48	0.45	0.49	0.54	
Standardized error	(0.04)	(0.05)	(0.04)	(0.05)	(0.06)	
<i>T</i>	9.65	10.30	10.00	10.55	8.90	
<i>Self-development of brand enhancement</i>						
PH	0.41	0.48	0.44	0.53	0.45	0.58
Standardized error	(0.04)	(0.05)	(0.04)	(0.05)	(0.04)	(0.06)
<i>T</i>	9.48	10.30	9.85	10.95	10.15	9.35

Table AV.
PHI, SE, and *T*

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