



Research paper

Brand knowledge and non-financial brand performance in the green restaurants: Mediating effect of brand attitude

Kuo-Ning Liu^a, Clark Hu^{a,*}, Meng-Chen Lin^b, Tung-I Tsai^{c,**}, Qu Xiao^d^a Department of Hospitality Management, Southern Taiwan University of Science and Technology, 1, Nan-Tai Street, Yong-Kang District, Tainan City, 71005, Taiwan^b School of Business Administration, Hubei University of Economics, No. 8 Yangqiaohu Road Jiang-xia Wuchang, Wuhan, Hubei Province, 430205, PR China^c Collaborative Innovation Center of China Pilot Reform Exploration and Assessment-Hubei Sub-Center, Hubei University of Economics, No. 8 Yangqiaohu Road Jiang-xia Wuchang, Wuhan, Hubei Province, 430205, PR China^d School of Hotel & Tourism Management, Hong Kong Polytechnic University, 17 Science Museum Road, TST East, Kowloon, Hong Kong

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ABSTRACT

The restaurant business has been increasingly recognized for its ability to help mitigate many negative environmental impacts. To develop a competitive advantage, green restaurants may adopt an innovative branding strategy. Marketing management recognizes that understanding brand attitude is critical for marketing strategies. Studies have examined the relationship between brand knowledge and non-financial brand performance. However, it remains unclear how the green restaurant brand attitude affects this relationship.

This study aims to fill this research gap by identifying the composition and structure of the brand attitude in Taiwan's green restaurants and examining the mediating effects of brand attitude on the relationship between brand knowledge and brand performance. The findings of this study broaden and deepen the current knowledge of the role of brand attitude in Taiwan's green restaurant industry. In practice, it is suggested that green restaurant management should develop well-known brand knowledge to form brand attitudes and foster brand performance.

1. Introduction

In this increasingly globalized and uncertain market, the restaurant industry is facing tremendous competitive pressure. The consumer's selection decision presents a difficult situation for restaurant operators to differentiate from seemingly the same restaurant choices. From the marketing perspective, being "green" has been a critical factor to survive for some businesses (Schubert et al., 2010). The restaurant business also has been increasingly recognized for its ability to help mitigate many negative environmental impacts (e.g., reducing solid waste or conserving water and energy). The attention of this particular issue of environmental and social considerations coincides with the growth and development of green restaurants (Horovitz, 2008). Some evidence has shown that consumers choose green products based on whether they are less harmful to the environment (Han et al., 2009; DiPietro et al., 2013; Kim et al., 2015; Susskind, 2014). Recent studies have also suggested that green practices can reduce operational costs (Schubert et al., 2010; Susskind, 2014), improve a business' corporate image and customer ratings (Hu et al., 2010; Namkung and Jang, 2013; Peiró-

Signes et al., 2014), increase consumers' satisfaction, purchasing and word-of-mouth intentions (Barber and Deale, 2014; Wu et al., 2016), and more importantly foster the long-term success of a company's financial performance (Singal, 2014). Hu et al. (2010) also suggested that it exist a growing trend that consumers gradually increase their environmental awareness towards the concept of "green" restaurants. Therefore, it is logical to believe that green restaurants can possibly use "green" branding as a competitive strategy to differentiate from rivalries in the market.

Many scholars in brand management studies (Kapferer, 2008; Keller, 2008; Post, 2008) argued that branding has been a widely acknowledged company strategy for many years. Keller (2003a,b) stated that "branding involves the process of endowing products and services with the advantages that accrue to building a strong brand (p. 595)." He observed that the application of brand attitude to marketing practice has drawn much industry attention. It is important for a business to be evaluated any brand-related information for its customers. Besides, he also noted that the attitude is summarized judgments of brand-related messages. Many studies have viewed the attitude as a function of the

* Corresponding author.

** Corresponding author.

E-mail address: clark.hu@gmail.com (C. Hu).

consumers' salient beliefs about a product or service and the evaluative judgment with how good or bad of the brand (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). In addition, brand knowledge as a major branding issue relates to the cognitive representation of the brand in consumers' minds (Peter and Olson, 2001). Heckler et al. (2014) further argued that building brand knowledge structures to achieve the proper positioning requires (1) creating sufficient brand awareness leading to brand liking, and increase choice advantage (Aaker, 1991; Keller, 2003a,b), and (2) projecting the right brand image in the minds of target consumers to differentiate a brand from its competitors' (Keller et al., 2002). Recently, studies have suggested that brand knowledge influence a company's performance (Kayaman and Arasli, 2007; Hsu et al., 2011). According to previous studies, brand performance can be measured in terms of financial and non-financial performance. Non-finance studies have measured brand performance often in terms of brand loyalty and customer satisfaction (Ehrenberg et al., 2004; Gundersen et al., 1996; Prasad and Dev, 2000).

Given the documented relationships between brand knowledge and customers' brand attitude, brand image and brand awareness may be the most crucial two factors in determining brand attitude (Simon, 1970; Hoyer and Brown, 1990; Keller, 2003a,b; Darling, 1981; Dobni and Zinkhan, 1990; Kotler, 1996; Dean, 2002). In addition, research has identified that greater cognitive processing of attitude-relevant information increases the possibility that these attitudes can affect customer behaviors (Chaiken et al., 1989; Petty and Cacioppo, 1986; Fazio et al., 1989). While the link between brand knowledge and brand performance has been established in the general marketing literature, several significant research gaps have been evident: first, fewer empirical studies focusing on the brand attitude were conducted in Taiwan's green restaurants; Second, how the green restaurant brand attitude may affect brand knowledge and non-financial brand performance was not investigated; and third, whether the green restaurant brand attitude plays a role in the relationship between brand knowledge and non-financial brand performance remains unknown.

To address the research gaps stated above, the main research purposes of this study were to propose and to empirically test a model that integrates the green restaurant brand attitude, brand knowledge, and non-financial performance. Specifically, this study was to investigate the mediating effect of brand attitude on the relationship between brand knowledge and non-financial brand performance in the immensely competitive restaurant market, with a focus on green restaurants.

2. Literature review

2.1. Green restaurants

Jang et al. (2011) defined a "green restaurant" as a restaurant with a new or renovated design and operated in an environmentally friendly and energy-efficient manner, as well as offers the option of locally grown or organic food on the menu. A green restaurant is connected to the different perspectives in which three Rs (reduce, reuse, and recycle) and two Es (energy and efficiency) must be satisfied (Gilg et al., 2005). A considerable number of studies have examined the effects of environmental knowledge on the ability to understand the impact on the ecosystem in a society. For example, some studies identified that restaurants can engage in minimizing their carbon footprint and reduce harm to the environment (DiPietro and Gregory, 2012; Schubert et al., 2010). Many green restaurants have widely adopted practices including using locally-grown and organic food, offering healthy menus, biodynamic and sustainable wines, employing energy- and water-efficiency equipment, forbidding disposable cups and to-go containers, recycling and disposing of cooking oils, reducing pollution and training employees with green conceptions (Gázquez-Abad et al., 2015; Schubert et al., 2010). Laroche et al. (2001) argued that consumers with better environmental knowledge are more willing to pay a premium price for

green products. In addition, Hu et al. (2010) stated that green food and green practices are important factors that influence patronage decisions of green restaurant customers.

2.2. Brand knowledge

Keller (2003a,b) suggested that "brand knowledge can be defined in terms of the personal meaning about a brand stored in the consumer memory, that is, all descriptive and evaluative brand-related information" (p. 586). A number of researchers have examined the organization of consumer memory and claimed that brand knowledge structure is organized by attributes or by brands, as well as the effects of different information-processing factors, e.g., consumer goals or brand familiarity (Bettman, 1979; Johnson and Russo, 1984; Olson, 1977). Keller (2003a,b) suggested that different kinds of information be linked to a brand and these different kinds of information can be defined as some of the key dimensions of brand knowledge (such as brand awareness or brand image).

2.3. Brand awareness

Aaker (1991) claimed that brand awareness is the perception of potential customers to recognize or recall that a brand is a component of a specified product category. He also asserted that awareness can be generally increased from no awareness to recognition to recall to top-of-mind. According to Keller (2003a), brand awareness comprises consumer responses evoked by brand-related situations or circumstances. Keller (2003b) suggested that brand awareness be a category identified and needs satisfied by the brand. Previous research had stated that brand awareness places the brand in the consideration set and increases choice advantage (Aaker, 1991; Keller, 2003a). An empirical study has also shown that brand awareness affects future brand choices and market share (Srinivasan et al., 2005). In addition, Dick and Basu (1994) suggested that brand awareness should link to "behavioral loyalty" when involvement is low with strong internalization. For green hotel companies, establishing brand awareness is essential to attracting pro-environmental customers who are willing to purchase a green lodging product (Han, 2015). A recent green restaurant study by Hu et al. (2010) also found that customers' brand awareness of restaurant green practices is a significant determinant of the intention to patronize green restaurants.

2.4. Brand image

Kapferer (1992) also pointed out that customers produce an image through a combination of projective signals. Therefore, brand image is a result of a customer acquiring, interpreting, and explaining a brand signal. Doyle (1989) observed that a brand's image encourages customers to perceive attributes and firmly connect them with the brand. Major factual (e.g., function) and abstract (e.g., status) attributes are strongly associated with brands. Thus, brand image research has analyzed the effects of brand image, including the effect of the combination of brand associations (Kunkel & Berry, 1968; Biel, 1992; Keller, 1993) and the understanding of a brand's tangible and intangible associations (Martineau, 1958; Doyle, 1989; Engel et al., 1993). In a recent green restaurant study, Namkung and Jang (2013) stated that green practices significantly influence customers' perceptions of a brand's green image. Jeong et al. (2014) further identified that green image is important and can positively affect customer attitudes towards the café business. In addition, Wu et al. (2016) stated that the hotel green image significantly influences green experiential satisfaction.

2.5. Non-financial brand performance

Many researchers have viewed brand performance in terms of brand loyalty, customer satisfaction, and corporate social performance. In

general, in the hospitality and lodging industries, there has been increasing interest in many additional factors that determine guest loyalty, the reasons for this loyalty, and the relationship between customer loyalty and profitability (Mason et al., 2006). According to O'Neill and Xiao (2006), the goal of hotel branding is to provide benefits to both customers and hotel companies. This is how hotel brands foster brand loyalty. Customer satisfaction is therefore crucial to this relationship. O'Neill and Mattila (2004) asserted that customer satisfaction is of the utmost importance in evaluating a hotel's branding strategy.

2.6. Brand loyalty

Previous research has divided the concept of brand loyalty into behavioral and attitudinal components (Aaker, 1991; Assael, 1998; Day, 1969; Jacoby and Chestnut, 1978; Jacoby and Kyner, 1973; Oliver, 1999; Tucker, 1964). However, many studies have contended that loyalty behavior is inherently inexplicable and too complex to comprehend (Bass, 1974; McAlister and Pessemier, 1982). Researchers have investigated the psychological commitment of the customer to purchase without necessarily taking the purchase behavior into account (e.g., Jacoby and Olson, 1970; Jarvis and Wilcox, 1976; Hsu et al., 2011). Thus, brand loyalty is treated more as an attitude. In Chaudhuri and Holbrook (2001) words, "behavioral, or purchase, loyalty consists of repeated purchases of the brand, whereas attitudinal brand loyalty includes a degree of dispositional commitment in terms of some unique value associated with the brand" (p. 82). They have suggested that brand affection lead to greater attitudinal loyalty and also means that a consumer is more likely to pay a premium price for the pleasure or excitement associated with the brand.

2.7. Customer satisfaction

Kandampully and Suhartanto (2000) found that "customer satisfaction is considered to be one of the most important outcomes of all marketing activities in a market-oriented firm" (p. 347). In addition, Gundersen et al. (1996) observed that customer satisfaction can be one of the most valuable assets for a firm in a saturated market. Major brand performance movements have emphasized that customer satisfaction is derived from a branding strategy. Prasad and Dev (2000) stated that brand equity can be measured based on customer satisfaction, suggesting that brand performance can be estimated by customer satisfaction with a product or service. In a hospitality study, Wu and Liang (2009) also pointed out that customer experiences at luxury hotel restaurants tend to rely on value as it relates to satisfaction. Aaker (1991) of brand value found that companies should integrate brand awareness, judgments of quality, and overall customer satisfaction. Shocker et al. (1994) observed that brand managers tend to lend significant importance to customer satisfaction in measuring successful branding strategies. According to Dube et al. (1994), customer satisfaction is used to form brand positioning strategies that help a business differentiate itself from competitors in the food and beverage industry.

2.8. Brand attitude

Keller (1993) argued that brand attitude is important because it often helps form consumers' brand choices. He observed that brand attitude is a function of the associated attributes and benefits that make the brand prominent. Zeithaml (1988) noted that brand attitude is beliefs about product-related attributes and the functional and experiential benefits, consistent with work on perceived quality. In addition, research conducted by Rossiter and Percy (1987) stated brand attitude as a belief about non-product-related attributes and symbolic benefits. Percy and Rossiter (1992) considered attitude as referring to a consumer's overall evaluation of a brand relating to its capacity to meet a currently relevant involvement/motivation, that is, brand attitude relies on the currently acceptable involvement/motivation.

Brand attitude plays an important role in marketing research. Researchers have explained that attitude involves cognitive, affective, and conative (Weber, 1991; Sheth et al., 1999; Lavidge, 1961; Percy and Rossiter, 1992; Tolba and Hassan, 2009). Among such a brand attitude, researchers have explained that attitude involves cognitive and affective measures. Percy and Rossiter (1992) mentioned that "the cognitive, or logical belief, component guides behavior and the affective, or emotional feeling, component energizes the behavior" (p. 266). They further explained that the cognitive dimension employs the concept of involvement or perceived risk attached to the purchase of a brand. According to Nelson's economic theory (1970), brand purchase decision can assort as either low involvement, where trial experience is sufficient, or high involvement, where search and conviction are required before acquirement (Percy and Rossiter, 1992). Perceived involvement is represented to be highly dependent upon a target customer. In addition, the affective dimension uses the dominant motivation essential to purchasing the brand. Dominant motivation is classified as either informational or transformational. Based on Fennell's motivation explanation (1978); Percy and Rossiter (1992) stated that informational strategies associated with negative drive reduction states (e.g., problem removal, problem avoidance, incomplete satisfaction, mixed approach avoidance, or normal depletion; and transformational strategies associated with positive drive enhancement (e.g., sensory gratification, intellectual stimulation, or social approval). Cognitive attitude determines the ability of a physical product or other marketing stimuli to attract customers' attention (Lutz, 1975; Bettman and Park, 1980; Engel et al., 1995). Affective attitude is established from marketing or advertising stimulus to finally influence customer attitude towards the brand (Fazio et al., 1989; MacKenzie and Lutz, 1989). In addition, Engel et al. (1995) also identified that both cognitive and affective attitudes are linked to customer intention.

2.9. The effects of brand knowledge on brand attitude

As aforementioned, Keller (2003a,b) identified the key dimensions of brand knowledge as brand awareness and brand image. He further stated that brand awareness consists of brand familiarity and brand recognizability (1993). This suggests that consumers' awareness be a tool whereby a company uses to influence consumer attitude to a brand by creating associations with and beliefs of a target customer towards a particular organization or product. Brand awareness can be defined as the customer's capability to recognize a brand in diverse contexts. Brand awareness can affect perceptions and attitudes. Keller (1993) provided excellent evidence supporting the positive relationship between brand awareness and brand attitudes. He indicated that exerting brand awareness increases the likelihood that the brand will be a consideration of the choice set (Nedungadi, 1990). MacDonald and Sharp (2000) also argued that customers tend to purchase products as they recognize products are familiar and regularly favored. They identified that awareness is critical to impacting attitude. Therefore, customer perceived green restaurant brand awareness has a significant effect on consumers' brand attitudes. This leads the authors to the following hypotheses:

H1. *Green restaurant customers' perceived brand awareness has a positive effect on their perceptions of brand attitude (cognitive).*

H2. *Green restaurant customers' perceived brand awareness has a positive effect on their perceptions of brand attitude (affective).*

Gray and Balmer (1998) mentioned that the corporate image comprises the immediate mental picture that audiences have of an organization. Brand image is designed by a company for forming customer emotional feelings towards the company (Villena-Manzanares and Souto-Perez, 2016). Therefore, the brand image can be described as the desired image for which a company wants customers to think about it and wants to affect customers' attitudes. Kotler (1996) stated the effects

of a company's brand image in the context of brand equity formation. He indicated that customers' perceptions of the brand image have a positive influence on brand attitude. According to this premise, researchers have also found that brand image can be related to brand attitude and that a more positive brand image may influence brand attitude more positively (Dean, 2002). Recently, Jeong et al. (2014) identified that the green image is important and can positively affect customer attitudes. Based on the findings of these studies, customer perceived green restaurant brand image has a significant effect on consumers' brand attitudes. This also leads to the following hypotheses:

H3. Green restaurant customers' perceived brand image has a positive effect on their perceptions of brand attitude (cognitive).

H4. Green restaurant customers' perceived brand image has a positive effect on their perceptions of brand attitude (affective).

2.10. The effects of brand attitude on non-financial brand performance

Brand attitude is a function of the associated product attributes and benefits that make the brand prominent (Keller, 1993). Zeithaml (1988) also noted that brand attitude is beliefs about product attributes and benefits, consistent with perceived quality. Brand attitude has been suggested to represent the consumers' overall evaluation of the brand and it is important because it often forms consumers' brand choices (Keller, 1993). Thus, it is likely that the consumer brand attitude will affect brand performance (i.e., customer satisfaction and brand loyalty). Cognitive attitude can be measured from actual knowledge or perceived knowledge of a product (Lutz, 1975; Bettman and Park, 1980). Particularly, Percy and Rossiter (1992) stated that the cognitive aspect of a brand attitude deals with one's involvement with a purchase decision. They further suggested that the cognitive attitude should guide consumers' behavior. In the green restaurant study (Chen, 2010), customers' perceptions of a restaurant linked to green practices can form their attitudes and significantly influence customer satisfaction. In exploring the relationship between consumer attitudes and behaviors toward green hotels, Manaktola and Jauhari (2007) found that brand attitude directly and positively affects consumers' brand loyalty. Based on the above findings, the authors argue that brand cognitive attitude has a significant effect on customer satisfaction and brand loyalty. Thus, the following hypotheses were proposed:

H5. Green restaurant customers' perceived brand attitude (cognitive) has a positive effect on their perceptions of customer satisfaction.

H6. Green restaurant customers' perceived brand attitude (cognitive) has a positive effect on their perceptions of brand loyalty.

Affective measures are used to identify either established or created attitudes from marketing or advertising stimuli with the attitude towards the brand (Fazio et al., 1989; MacKenzie and Lutz, 1989). Percy

and Rossiter (1992) explained that the affective aspect of brand attitude employs the dominant motivation underlying brand purchase, which in turn will stimulate the buyer's behavior. Researchers building a model of customer satisfaction have suggested that brand attitude should positively affect customer satisfaction (Woodruff et al., 1983). Chang (2011) conducted a study on brand attitude towards green products in the context of green product advertising. He stated that restaurant consumers with ecological perceptions prefer to make eco-friendly purchases. Based on the above explanations, the authors argued that brand affective attitude also has a significant effect on customer satisfaction and brand loyalty. Thus, the authors proposed the following hypotheses:

H7. Green restaurant customers' perceived brand attitude (affective) has a positive effect on their perceptions of customer satisfaction.

H8. Green restaurant customers' perceived brand attitude (affective) has a positive effect on their perceptions of brand loyalty.

2.11. Meditating role of brand attitude

Hsu et al. (2011) examined upscale Chinese hotel brands from a brand equity viewpoint and showed that brand image and brand awareness are decisively related to brand loyalty. Some other researchers have stated that brand image and brand awareness may be the most crucial factors in determining brand attitude (Kotler, 1996; Dean, 2002). An additional study also has found that brand attitude can directly affect consumers' brand loyalty (Arjun, 1999). As reported earlier, Percy and Rossiter (1992) found that brand attitude is related to involvement and motivation. The cognitive brand attitude generally applies the concept of involvement in the purchase of a brand. Given that affective brand attitude depends upon the currently relevant motivation, as a consumer's motivation changes, so will the consumer's evaluation of a brand. This difference may explain that if an involvement or a motivation exists, consumers will choose some brand that best meets that involvement/motivation from the preferences of which the consumer is conscious. Thus, it could be expected that the green restaurant brand attitude (cognitive/affective) will mediate the relationships between customers' brand knowledge and brand performance. Consequently, the authors offered the following hypotheses:

H9. The perceptions of brand attitude (cognitive) mediate brand knowledge-non-financial green restaurant brand performance relationship.

H10. The perceptions of brand attitude (affective) mediate brand knowledge-non-financial green restaurant brand performance relationship.

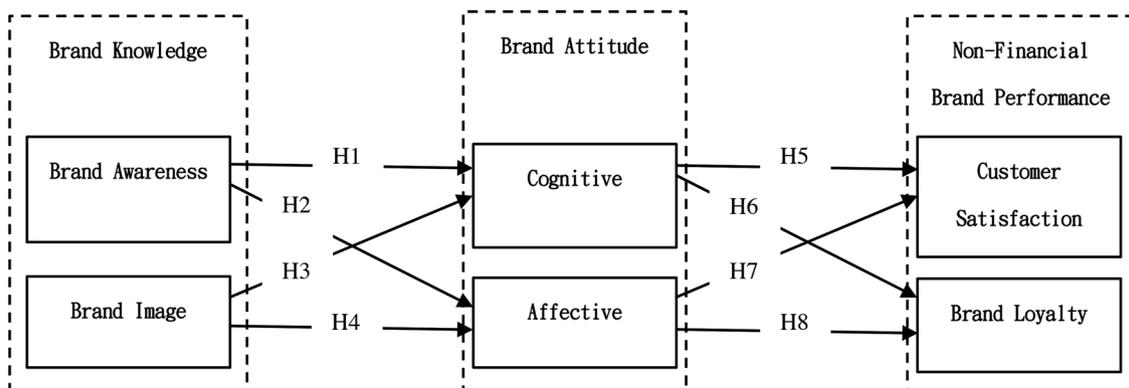


Fig. 1. Proposed research model.

3. Methodology

3.1. Model development

Based on a thorough review of the literature, the research model used in this study is presented in Fig. 1.

3.2. Measurement instrument

The questionnaire’s measurement indicators were drawn from scales validated by the literature for each of the study’s constructs. The research instruments were based on previous studies, adapted to fit the restaurant’s context with a focus on green-restaurant customers. Therefore, the initial measurement instrument was developed by a literature review. Based on previous studies (Weber, 1991; Engel et al., 1995; Sheth et al., 1999), the brand attitude was measured by nine items - for example, “This restaurant’s meal is good quality” and “I like to dine in this restaurant”. To measure brand awareness and brand image, eleven items (Hsu et al., 2011; Keller, 1993), such as “This restaurant is famous” and “Dining at this restaurant makes me feel special” were employed. Brand loyalty and customer satisfaction were evaluated by twelve questions (Hsu et al., 2011; Wu and Liang, 2009). For instance, “Even when I hear negative information about this restaurant, I am still willing to dine at the restaurant” and “I am satisfied with my experience of dining at this restaurant”. The original instrument items were in English. We used the forward-backward translation method to ensure that all translated measures in Mandarin are equivalent to their English originals. A bilingual (in English and Mandarin for translation) expert panel of two individuals who have regularly conducted research and published in international journals were employed to independently perform the forward (English to Mandarin) and backward (Mandarin to English) translation tasks, then both met to discuss resulting discrepancies to reach consensus. All questions of restaurant customer perceptions of brand attitude, brand knowledge, and brand performance were assessed via a 7-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (7). A pilot test of the research instrument was then conducted with fifty customers selected from the target population of the main consumer survey. At the same time, exploratory factor analysis (EFA) was conducted on the pilot test data to explore the dimensionality of each construct. Finally, given the EFA results, no items were removed due to good construct reliability and validity indicated by factor loadings (each factor loading greater than 0.6, composite reliability greater than 0.6, and AVE greater than 0.5) (Table 1).

3.3. Data collection

The data used in this study were drawn from customers dining at local green restaurants in Taiwan. All of these restaurants are located in the Kaohsiung city in southern Taiwan. Based on the Bureau of Agriculture Kaohsiung City Government (2018), there were 19 green restaurants in Kaohsiung city. The questionnaire was administered at the La VEE, Sika, Tea House, Hi-Lai Vegetarian, and THOMAS CHIEN restaurants. At each of the four targeted green restaurants, a trained researcher was escorted by the restaurant manager when approaching customers to invite their participation in the study. During the data collection process, the restaurant staff helped distribute questionnaires to customers after they ordered dishes. The participants were then asked to hand in the completed questionnaires before leaving the restaurant. A total of 528 usable responses were collected for further analyses. As seen in Tables 2 and 3, the respondent profile shows that genders split around half (female 51.7%), relatively young customers aged 21–30 years old (46.4%), and highly educated with bachelor’s degrees (68%). In terms of occupation, working in the service industry accounted for 24.6% of the respondents, and 24.8% of the respondents earned NT\$30,001–\$40,000 monthly household income. The majority

Table 1
The measured construct EFA results.

Dimension	Items	Loading	Composite Reliability (CR)	AVE		
Brand knowledge	Brand awareness	BA 1	0.764	0.930	0.727	
		BA 2	0.888			
		BA 3	0.819			
		BA 4	0.812			
		BA 5	0.862			
Brand attitude	Brand image	BI 1	0.819	0.928	0.683	
		BI 2	0.501			
		BI 3	0.824			
		BI 4	0.829			
		BI 5	0.623			
		BI 6	0.774			
Brand attitude	Cognitive	CC1	0.906	0.961	0.859	
		CC2	0.935			
		CC3	0.916			
		CC4	0.814			
		CC5	0.814			
	Affective	AC1	0.913	0.967	0.855	
		AC2	0.915			
		AC3	0.922			
		AC4	0.846			
		AC5	0.901			
Non-financial brand performance	Customer satisfaction	CS 1	0.947	0.969	0.863	
		CS 2	0.939			
		CS 3	0.971			
		CS 4	0.960			
		CS 5	0.890			
	Brand loyalty	Brand loyalty	BL 1	0.744	0.939	0.688
			BL 2	0.827		
			BL 3	0.842		
			BL 4	0.916		
			BL 5	0.898		
			BL 6	0.907		
			BL 7	0.923		

Table 2
Respondent demographic profiles (N = 528).

Characteristics	Frequency	Respondents (%)	
Gender	Male	255	48.3%
	Female	273	51.7%
Age	Under 20	64	12.1%
	21–30	245	46.4%
	31–40	150	28.4%
	41–50	36	6.8%
	51–60	25	4.7%
	61 or over	8	1.5%
	Education level	High school or lower	110
Occupation	Bachelor’s degree	359	68%
	Postgraduate degree	59	11.2%
	Information technology	85	16.1%
	Company employee	69	13.1%
	Worker	22	4.2%
Marital Status	Teacher/civil servant	68	12.9%
	Service industry	130	24.6%
	Student	101	19.1%
	Others	53	10%
	Single	324	61.4%
	Married no children	88	16.7%
Household income (NT\$) ^a	Married with children	116	22%
	Less than 20,000	94	17.8%
	20,001–30,000	126	23.9%
	30,001–40,000	131	24.8%
	40,001–50,000	59	11.2%
50,001–60,000	53	10%	
More than 60,000	65	12.3%	

^a 1US\$ roughly = 30 NT\$.

of the respondents (61.4%) were single. Over 70% of the total sample (71.2%) were first-timers and had never dined with the target

Table 3
Respondent dining behavior.

Characteristics		Frequency	Percentage (%)
Has dined with restaurant brand	Yes	152	28.8%
	No	376	71.2%
Dinning purpose	Friend gathering	254	48.1%
	Family gathering	171	32.4%
	Colleague gathering/others	103	19.5%

restaurant brand. In addition, the most reported dining purpose was friend gathering (48.1%).

4. Results

4.1. Common method variance (CMV)

According to Podsakoff et al. (2003), data collected from the same source may cause a potential concern that common method variance is attributable to the measurement method rather than to the constructs the measures represent. To address the issue of potential common method variance problem, the authors applied the Harman's single-factor test (1976) to examine whether the data were biased by common method variance. All six latent variables were entered into an unrotated factor solution to determine the number of factors that are necessary to account for the variance in the variables. The authors found that neither a single factor emerged from the factor analysis nor one general factor accounted for 27.87% of the covariance among the measures. Thus, the amount of common method variance was not substantial to present in this study.

4.2. Confirmatory factor analysis and convergent and discriminant validity tests

In terms of assessing the construct validity of the proposed measurement model, studies have looked at the factor loadings of each indicator (Hair et al., 2010) and determined that the standardized loading estimates should be above the minimum requirement of 0.5 and ideally 0.7 or higher with a significant p-value to confirm the convergent validity of a construct. Reliability is also an important indicator of convergent validity. The application of reliability to validity (Hair et al., 2010) provides a chance to observe whether the degree of a set of latent constructs is internally consistent. When using Cronbach's alphas to confirm the internal consistency of each construct (Hair et al., 2010; Nunnally, 1978), it is important that each construct exceeds the minimum standard for reliability of 0.7. In addition, Hair et al. (2010) recently indicated that the average variance extracted (AVE) for each construct should be larger than the squared correlation estimates between two constructs, therefore, supporting the discriminant validity of the model. It has been suggested that the AVE should collectively be greater than 0.5 to indicate satisfactory convergent validity. The results of this study indicate that the Cronbach's alpha values for reliability reached adequate levels, including 0.917 for brand awareness, 0.922 for brand image 0.912 for brand attitude (cognitive), 0.930 for brand attitude (affective), 0.956 for brand loyalty, 0.938 for customer satisfaction. Meanwhile, the AVEs for all constructs surpassed the required standard. Therefore, both the convergent and discriminant validities of the measurement model were proven. The Confirmatory Factor Analysis (CFA) results for all measured constructs are presented in Table 4.

4.3. Structural model and hypothesis testing

Structural Equation Modeling (SEM) analysis was conducted for assessing the appropriate fit of the proposed models. The result of the

model fit indicates that to some degree, the structural model was reasonable and no further amendment was needed (i.e., $\chi^2/df = 2.309$, $RMR = 0.004$, $RMSEA = 0.050$, $GFI = 0.997$, $AGFI = 0.970$, $NFI = 0.999$, $CFI = 0.997$, $IFI = 0.999$) (Table 5). In general, the guidelines implemented by Hair et al. (2010) and Brown (2006) were used to interpret the model fit indices, and RMSEA values less than 0.05 were typically considered good. CFI, GFI, and AGFI values above 0.90 are usually associated with a model that fits well. This indicates that the structural model adequately fit the data. In addition, means, standard deviations, and correlations of variables are presented in Table 6. The proposed model was estimated to investigate the relationship among brand knowledge, brand attitude, and non-financial brand performance. The result shows restaurant customers' perceived brand knowledge (brand awareness, brand image) was found to positively affect brand attitude (cognitive, affective) ($r = 0.337$; 0.230; 0.490 and 0.643). It showed support for Hypotheses 1–4. Second, the results demonstrate that both brand attitude (cognitive, affective) had significant effects on non-financial performance (customer satisfaction, brand loyalty) ($r = 0.136$; -0.293 ; 0.835 and 1.268). Hypothesis 5–8 were accordingly supported (Table 7).

4.4. Meditating effects testing

This study used the PROCESS macro version 3.4 for SPSS to process two separate ordinary least square (OLS) regression analyses in order to examine the mediation model (Hayes, 2013). Two dummy variables D1 and D2 were created using indicator coding to represent the brand knowledge in the tests of mediating effects of brand attitude (cognitive and affective). Within each dummy variable, every participant was assigned a "0" (non-existence) or "1" (existence); across the two codes, brand awareness and brand image were represented by a unique pattern of scores (Darlington and Hayes, 2017; Hayes and Preacher, 2014). Table 8 presents the relative indirect effect calculated for each model. They indicated the degree to which differences in non-financial brand performance between the brand knowledge contrasted in D1 or D2 were due to the brand knowledge on cognitive or affective and the respective brand attitude function's subsequent effect on non-financial brand performance. As seen in Table 8, the confidence intervals spanning zero show that cognition has no such mediating effect on the relationship between brand knowledge and non-financial brand performance. However, the results show evidence of mediation of the relationship between brand knowledge and non-financial brand performance by the mediator variable affective. Therefore, Hypothesis 9 was not supported but Hypothesis 10 was supported.

5. Discussions and implications

5.1. Discussions

This study is one of few studies to focus on the green restaurant brand attitude in Taiwan. The study shows restaurant customers' perceived brand knowledge (brand awareness, brand image) was found to positively affect brand attitude (cognitive, affective). First, brand knowledge was positively related to brand attitude (cognitive). The results indicate that brand knowledge had the most significant positive effect on restaurant brand attitude (cognitive) when customers believed the restaurant's meal is good quality. In addition, brand knowledge was also found to have a significant effect on restaurant brand attitude (affective) when dining at a specific restaurant brand made the customers feel "I like to dine in this restaurant". The findings confirm that brand awareness affects brand attitude in previous important studies (Simon, 1970; Hoyer and Brown, 1990; Keller, 1993). Likewise, researchers have also identified customers' brand image to be a major influence on the development of brand attitude (Aaker, 1996; Kotler, 1996).

Scholars have considered the evaluation of brand performance

Table 4
The measured construct CFA results.

Dimension	Factors	Factor loading	C.R	AVE	Cronbach's α
Brand awareness	BA1 This restaurant is very famous.	0.880	0.938	0.751	0.917
	BA2 This restaurant is well rated.	0.890			
	BA3 Among the many brand restaurants, this restaurant is different.	0.867			
	BA4 I have heard of this restaurant.	0.859			
Brand image	BA5 I know that the meals in this restaurant meet the standards of a peaceful diet	0.836	0.939	0.720	0.922
	BI1 This restaurant has an environmental image different from other restaurants.	0.853			
	BI2 The brand of this restaurant is famous in Kaohsiung.	0.836			
	BI3 This restaurant attracts customers who care about environmental issues.	0.845			
	BI4 Dining at this restaurant makes me feel special.	0.825			
	BI5 I know very well that those customers will dine in this restaurant.	0.857			
Cognitive	BI6 This restaurant matches my personal image.	0.874	0.938	0.791	0.912
	CC1 This restaurant's meal is good quality.	0.893			
	CC2 I think that dining in this restaurant has a positive environmental attitude.	0.886			
	CC3 This restaurant provides fresh food, and let me feel free to eat.	0.901			
Affective	CC4 Compared to restaurants without brands, I think this restaurant is more reliable.	0.877	0.947	0.782	0.930
	AC1 This restaurant induces a feeling of increased self-identity.	0.886			
	AC2 This restaurant makes me feel that it meets my needs.	0.885			
	AC3 This restaurant makes me feel that it meets my needs.	0.870			
	AC4 The image and style of this restaurant are quite in line with my personality.	0.882			
	AC5 I like dine in this restaurant	0.897			
Dimension	Factors	Factor loading	C.R	AVE	Cronbach's α
Customer satisfaction	CS1 I am satisfied with my experience of dining at this restaurant.	0.906	0.952	0.800	0.938
	CS2 This restaurant can meet my personal expectations.	0.877			
	CS3 I am very happy to dine at this restaurant.	0.909			
	CS4 The performance of this restaurant meets my expectations for dining needs	0.891			
	CS5 The cost in this restaurant is worth it.	0.889			
Brand loyalty	BL1 Even when I hear negative information about this restaurant, I am still willing to dine at this restaurant.	0.901	0.964	0.790	0.956
	BL2 Even if the price of this restaurant were to increase modestly, I would still dine at this restaurant.	0.892			
	BL3 I am interested in knowing how this restaurant is doing as a brand.	0.863			
	BL4 I will give priority to this restaurant when I choose to eat at the restaurant.	0.882			
	BL5 I want to visit this restaurant again.	0.906			
	BL6 I would recommend friends to dine at this restaurant.	0.883			
	BL7 I am willing to try the new produce of this restaurant.	0.895			

Table 5
Model fit indices.

Index	Standard	Result
χ^2/df	1.0–5.0	2.309
GFI	> 0.9	0.997
AGFI	> 0.9	0.970
RMR	< 0.08	0.004
RMSEA	< 0.08	0.050
NFI	> 0.9	0.999
CFI	> 0.9	0.999
IFI	> 0.9	0.999

Table 6
Descriptive statistics and intercorrelations of variables.

	Means	Standard deviations	BA	BI	CC	AC	CS	BL
BA	5.4612	1.15185	1					
BI	5.4920	1.11540	0.868**	1				
CC	5.5625	1.11300	0.762**	0.782**	1			
AC	5.5530	1.11953	0.797**	0.841**	0.824**	1		
CS	5.5461	1.13089	0.767**	0.809**	0.824**	0.865**	1	
BL	5.5186	1.19370	0.768**	0.841**	0.752**	0.878**	0.864**	1

Note: BA = brand awareness; BI = brand image; CC = cognitive; AC = affective.

CS = customer satisfaction; BL = brand loyalty.

** $P < 0.01$.

through market share and relative price (financial performance). Additionally, researchers have also viewed brand performance in terms of brand loyalty, customer satisfaction (non-financial brand

performance). In this study, the participants thought that restaurant brand attitude had a positive effect on non-financial brand performance (brand loyalty and customer satisfaction). The respondents who were influenced by their brand attitude also felt like being an advocate of a green restaurant brand (e.g., guests are interested in knowing how a restaurant is doing as a brand, or feel they are loyal customers of the restaurant brand). These findings are in line with previous studies in establishing an understanding of how brand attitude affects brand loyalty (Arjun, 1999; Chauduri, 1999). Meanwhile, the customers thought that the restaurant brand attitude had a positive effect on customer satisfaction. Those who were satisfied with a restaurant brand's service quality were significantly influenced by brand attitude. As such, guests may consider brand attitude dimensions to be important factors in customer satisfaction. These findings support many researchers who have contended that brand attitude influences customer satisfaction (Romaniuk and Sharp, 2003; Sengupta and Fitzsimon, 2000; Neal, 2000).

This study also examined the mediating effect of brand attitude on the relationship between brand knowledge and non-financial performance in the green restaurant. The results indicate that the brand attitude (cognition) does not mediate the path from brand knowledge to non-financial brand performance. Thus, when one has a good brand knowledge of a green restaurant, one can directly build a higher satisfaction and loyalty to the green restaurant in one's mind. Percy and Rossiter (1992) suggested that cognitive attitude employ the concept of involvement (low or high) related to the brand purchase. Low involvement can be explained as sufficient trial experience before purchase, and high involvement can be identified as search and conviction required before acquirement. This study shows that most of the respondents (71.2%) were first time dining at the green restaurant brands of interest. Perhaps they did not have trial experience before purchase

Table 7
Structural parameter estimates.

Path		Standardized estimate	t-Statistic	P-value	Result
H1	Brand awareness→Cognitive	0.337	6.406	< 0.001***	Supported
H2	Brand awareness→Affective	0.230	5.794	< 0.001***	Supported
H3	Brand image→Cognitive	0.490	9.326	< 0.001***	Supported
H4	Brand image→Affective	0.643	15.952	< 0.001***	Supported
H5	Cognitive→Customer satisfaction	0.136	2.348	< 0.05*	Supported
H6	Cognitive→Brand loyalty	-0.293	-4.475	< 0.001***	Supported
H7	Affective→Customer satisfaction	0.835	12.723	< 0.001***	Supported
H8	Affective→Brand loyalty	1.268	17.100	< 0.001***	Supported

Table 8
Testing mediating effects of brand attitude.

	Indirect effect	SE	Confidence interval
Mediator: cognitive			
D1	0.2288	0.0374	[0.1543, 0.2998]
D2	-0.0092	0.0436	[-0.1003, 0.0712]
Mediator: affective			
D1	0.2038	0.0284	[0.1510, 0.2623]
D2	0.3192	0.0342	[0.2539, 0.3893]

Note. Analyses based on 5000 bias-corrected bootstrapped samples. Confidence intervals set to 95%.

D1 contrasts Brand awareness; D2 contrasts Brand image.

(low involvement). Thus, cognitive attitude does not act as a mediator of the brand knowledge-brand performance relationship. However, brand attitude (affective) was found to mediate (partially) the path of brand knowledge to non-financial brand performance. According to [Percy and Rossiter \(1992\)](#), affective attitude is classified as informational (negative drive reduction states) or transformational (positive drive enhancement) motivation underlying brand purchase. As such, the findings support past research by indicating that green restaurant customers with the perceived brand image are at an enhanced affective attitude (sensory gratification) in increasing future dining intention ([Percy and Rossiter, 1992](#)). In summary, previous research has supported the positive relationships between brand knowledge and non-financial brand performance ([Aaker and Keller, 1990](#)). Meanwhile, the findings of this study suggest that green restaurant operators should enhance the effects of their brand attitude by boosting customers' affective rather than cognitive perceptions.

In accomplishing its research proposes, this study successfully responds to the call for research to better understand the brand attitude and its components in the green restaurant industry. Accordingly, theoretical and managerial implications are provided as follows.

5.2. Implications

5.2.1. Theoretical implications

This study contributes to the exploration of the brand attitude concept. [Engel et al. \(1995\)](#) suggested that a variety of elements (such as cognition and affection) help create customer intentions. This study considered brand attitude from the viewpoint of green restaurant customers. In contrast to past studies, this study looked into the different dimensions of green restaurant brand attitude and created a reference point for future research on brand attitude theory. In the field of "green hospitality" study, a recent restaurant study has shown that green brand image positively affects brand attitude ([Jeong et al., 2014](#)). Another study about environmentally friendly hotels also identified that hotel guest attitude towards green behaviors influences visit intention ([Han et al., 2009](#)). Different from previous studies, this study adapted the existing constructs to a new context specific to the green restaurant industry. The authors tried to understand the green restaurant customer viewpoint of brand knowledge through the lens of brand image and brand awareness. Similarly, the brand attitude in this study was also

examined through two dimensions of cognition and affect. In addition, the non-financial brand performance was studied through its outcomes as brand loyalty and customer satisfaction.

This study also extends the proposed model by dividing it into cognitive and affective brand attitude groups to examine the role of brand attitude between the two groups. Finally, it was observed that the green restaurant brand attitude (affective) has an independent mediating role in the relationship between brand knowledge and non-financial brand performance. Over the last few decades, research related to testing the mediating effect of brand attitude on the relationship between brand knowledge and non-financial brand performance in the green restaurant context has been sparse. The results of this study provide academics with an understanding of the mediating role of brand attitude. This study also contributes to the manifestation of a mediating effect of brand attitude in a theoretical model.

5.2.2. Managerial implications

From a managerial perspective, the green restaurant management should realize that a restaurant's non-financial brand performance is not only built on brand knowledge but also driven by brand attitude. A better understanding of this mechanism should provide green restaurant managers with the knowledge necessary to form brand strategies. Restaurants have increasingly become commoditized and products have been sold primarily based on the price. Restaurant managers always mention the need to form a guest's attitude during dining. However, the literature has provided little guidance on developing restaurant brand attitude. This study further suggests the input of an experiential marketing program that emphasizes two main attitude dimensions for green restaurant brand management. For example, managers may implement a marketing program that integrates cognitive tangibles with affective intangibles in building a unique green dining experience.

Much attention has recently been paid to successful strategies for organizing and managing restaurant brand knowledge. One way to do so involves cultivating a brand image and brand awareness. Some restaurants meld centuries of local tradition with chic contemporary style to create a peaceful environment and consequently develop a unique brand image and awareness. This study reveals that brand knowledge has a significant effect on brand attitude. It should provide further lessons for green restaurants when devising strategies that consider the dynamic interplay of brand knowledge and attitude.

Restaurant customers' direct perceptions of brand attitude are usually the strategic focus in building long-term brand loyalty and customer satisfaction. Restaurant executives who invest resources into the experiential design may have a greater influence on the development of brand performance by applying a brand attitude. A branding strategy should be directed towards restaurant design and other ancillary facilities that make customers feel relaxed and comfortable. In the modern restaurant business, it is the customer experience that allows green restaurants to attain sustainable brand loyalty and customer satisfaction.

Brand attitude plays an important role as a mediator of the relationship between brand knowledge and non-financial brand performance. To take advantage of the different facets of a restaurant brand

attitude, it is crucial for restaurant owners to enhance their customers' perceived brand attitude. Green restaurant owners and managers should be concerned with the diversity of brand attitude dimensions offered and their effects on overall brand knowledge and non-financial brand performance.

6. Conclusion and suggestions

According to the results of the study, the brand knowledge of a green restaurant can affect its brand attitude and non-financial brand performance. The effect of brand attitude on brand loyalty and customer satisfaction also be found. The main research purpose was to examine the mediating effect of brand attitude in the conceptual model. Cognitive and affective brand attitudes as perceived by green restaurant customers were found to have different effects. By investigating the mediating effect of brand attitude, the study revealed that two effects served as a mediator of two links: brand knowledge and non-financial brand performance in the green restaurants. In the highly competitive restaurant industry, the application of brand attitude to marketing practice has drawn much industry attention. Marketing management recognizes that understanding brand attitude is critical for developing products and services in addition to effective marketing strategies (Engel et al., 1995). There is a strong possibility that green restaurants will eventually find value in adopting the measurement instruments and suggestions presented in this study to assess and guide their marketing practices.

Despite the careful design of the study, there are limitations. First, this study requires additional evaluations to increase its generalizability. Its data were collected at four restaurants located in one geographic area in Taiwan, which limited the findings' generalizability. Collecting samples from a larger number of green restaurants in various areas and across other regions would create a more diverse set of findings. Second, this study implemented an essentially cross-sectional structure. This prevents strong assertions from being made about the ordered structure of its model, no matter how strictly the literature was followed in deriving such a structure. Future studies may consider further validations of the proposed model over time. A longitudinal design would provide additional opportunities to validate the model's stability over time and to assess the causal relationships among the constructs.

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