

# Simplified structural modeling of loyalty acquisition based on the conceptual clustering model

Yao-Hsu Tsai<sup>1</sup>

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**Abstract** The paper evaluates the role of brand image and the mediating effects of perceived value on customer loyalty in a branded café setting. While customer satisfaction is typically a necessity for customer loyalty, customer satisfaction does not necessarily equate to acquisition of customer loyalty for reasons that there are other situational variables involved. The proposed structural equation methodology forgoes the construct of perceived quality that had appeared in most of conventional models. Instead, the study treats perceived quality as a latent variable of perceived value while bypassing another independent construct (customer satisfaction) in the customer loyalty linkage. Drawing upon a large sample of patrons from *Dazzling Café*, the findings suggest that customer loyalty is predicted by perceived value. While brand image has an indirect effect on customer loyalty via perceived value, the correlation between brand image and customer loyalty is ambiguous.

**Keywords** Brand image · Perceived quality · Perceived value · Customer loyalty

## 1 Introduction

In the highly competitive upscale café industry where products and services have reached commodity status, the *Dazzling Café* (aka *Honey Toast*), being a newcomer to the market in Taiwan, must set its products and services apart from the more established counterparts, *Barista Coffee*, *Dante Coffee*, *85 Café*, and *Starbucks*. The core product of café businesses

is distinctive for not only within goods but also being considerably affected by customers' involvement and experience. The experience that exists in the consumer's mind is what creates the differentiation between competitors. Achievement of long-term competitive advantage is often associated with customer loyalty where the most common measure involves behavioral gauges, such as "share-of-wallet" – the degree of buying or using of the service [38], but loyalty is also derived from consumers' affective commitment to a service provider.

The move to measure customer loyalty is based on the desire to understand customer retention better, which has a direct link to business profitability. Studies have documented that a 5% increase in customer retention (reduced defection) can generate a profit growth of 25–85%. In addition, retaining existing customers (enhanced customer loyalty) usually has a much lower associated (acquisition) costs than acquiring new ones in conquest marketing. More specifically, it is six times less expensive to plan marketing strategies for retaining existing customers than it is to attract new customers. Furthermore, a loyal customer is much more likely to act as a free word-of-mouth (WOM) advertising agent who informally brings networks of friends, relatives, and other potential consumers to a product or service. In fact, it has been found that WOM referrals account for more than 60% of the sales to new customers. Such exceptional return makes loyalty a fundamental strategic component for businesses.

The study of customer loyalty was limited to repeat purchase behavior in the early years but has since evolved appreciably to include various combinations of brand (or image), expectations, trust, service (or perceived) quality, perceived value, and customer satisfaction [8, 25, 48]. Despite the presence of abundant studies on loyalty, relationships between antecedents of customer loyalty are inconclusive. While customer satisfaction is frequently used as an indicator of repeat patronage, there is no guarantee that satisfied

✉ Yao-Hsu Tsai  
happy4golf2007@gmail.com

<sup>1</sup> Department of Hospitality Management, Chung Hua University, Hsinchu, Taiwan

customer will return. In fact, many companies have started to notice a high customer defection despite high satisfaction ratings. This phenomenon has prompted a number of scholars to criticize the mere “satisfaction  $\rightarrow$  loyalty” studies while calling for a paradigm shift to the quest of customer loyalty as a strategic business goal. As a result, satisfaction measures may be displaced by the concept of customer loyalty because loyalty can be seen as a safer or better predictor of actual behavior.

There have also been contradictory findings on the relationship between image and customer satisfaction, and their impacts on customer loyalty. Lai et al. [31] revealed image as an antecedent to satisfaction but image was not a significant determinant of loyalty. Conversely, positive correlation between image and customer satisfaction was identified in the context of chain hotels. In general, customer loyalty has widely been perceived by many scholars as a multi-dimensional construct that related customer satisfaction to customer loyalty as a positive loyalty determinant [34]. However, satisfaction may be referred to the overall affective response resulted from the service experience. Hence, the study boldly hypothesizes “customer satisfaction” to be inert facets of “perceived value”, from both an affective standpoint (emotional response) and a perceived service quality standpoint.

In lieu of “service (or perceived) quality” and/or “customer satisfaction” as stand-alone constructs preceding “customer loyalty” in most structural models [8, 41, 49], the study argues that “perceived quality” should be treated as a latent construct under “perceived value” while bypassing the element of “customer satisfaction” altogether. The basis being that the “customer satisfaction  $\rightarrow$  customer loyalty” relationship is deeply flawed, as evidenced by a number of literatures that have indicated that satisfied customers defect due to emergence of new competitors, customers’ changing needs, customers’ variety-seeking orientation, and levels of involvement in decision making. It is not to say that “customer loyalty” can be achieved without acquiring “customer satisfaction” because dissatisfied customers would not return. Instead, the study simply hypothesizes that the element of “customer satisfaction” is hidden within various latent variables under “perceived value” in a proposed structural model of the “brand image  $\rightarrow$  perceived value  $\rightarrow$  customer loyalty” interrelationship in the context of an emerging branded café setting.

## 2 Literature review

When launching new products and services, many companies frequently follow the brand extension strategy [3, 37] that leverages brand equity to reduce marketing costs while increasing the likelihood of success. The uniqueness of

branded café service presents more daunting challenges than those of product branding. Unlike product branding, consumers often perceive minimal differences between competing brand services, which makes it difficult for consumer to differentiate between service providers. The review of literatures would explore constructs associated with brand image, perceived value, and customer loyalty for the development of questionnaire measurements.

### 2.1 Brand image

In the study of brand marketing, much attention has been paid to the concept of brand equity. Brand equity is often defined as customers’ perceived extra value associated with a particular product that is accrued by a brand beyond the functional or utilitarian value of the product. It is believed that customers are more likely to have loyalty toward a particular brand if there is a high level of brand equity. For this reason, businesses try to obtain a superior level of brand equity to gain competitive advantage. To establish brand equity, businesses seek to establish brand image which is a central driver of brand equity. Moreover, studies had shown brand image to be a critical cue for customer perceptions of product quality which ultimately influenced customer patronage behaviors.

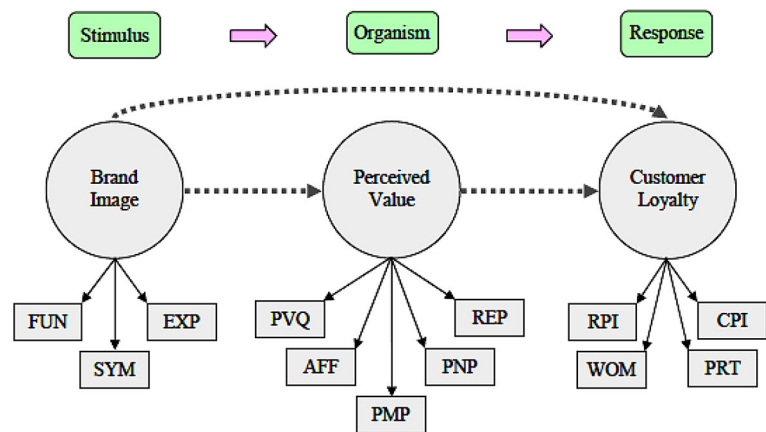
Brand image has been viewed by some studies as dimensions of functional, symbolic, and experiential benefits. Similarly, brand image has been operationalized with dimensions of: corporate, social, and product images [48]. The hierarchy sequence of brand image assessed by consumers may progress from the rational (or functional) value to the emotional value (or symbolic level), and then the promised experience or physical delivery [15, 17, 18].

### 2.2 Perceived value

One of the most widely used definitions of perceived value is that “the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given”. In other words, perceived value of the total package of products and services is what influences consumer behavior and it was suggested that perceived value may be a better predictor of repurchase intentions than either customer satisfaction or quality. Oh (2000) [36] measured patrons’ perceptions of dining quality, value, and satisfaction both “prior to” and “after” their dining experience. Results found that perceived value was a superior predictor of repurchase intentions from both pre- and post-experiences.

In earlier studies of perceived value, the researchers believed that “perceived quality” and “high-level abstractions” are the higher-level attributes of perceived value. Being perceptions of lower-level attributes of perceived value, “perceived sacrifice” is composed of the “perceived monetary price” and the “perceived nonmonetary price”. The lower-

**Fig. 1** Conceptual model of brand image, perceived value, and customer loyalty



level attributes of perceived value are “extrinsic attributes” and “intrinsic attributes”.

Later, Sheth et al. [47] developed a broader theoretical framework of perceived value which regarded consumer choice as a function of multiple “consumption value” dimensions. The five suggested dimensions relating specifically to the perceived utility of a choice are: functional value, conditional value, social value, emotional value, and epistemic value. Then, Sweeney and Soutar [54] developed the PERVAL scale that was consisted of: quality dimension, emotional dimension, price dimension, and social dimension. Another example of a similar multidimensional scale is the SERV-PERVAL scale that includes five dimensions of: “quality”, “emotional response”, “monetary price”, “behavioral price”, and “reputation” [43].

### 2.3 Customer loyalty

There has been a plethora of customer loyalty definitions over the years because customer loyalty constitutes an underlying objective for strategic marketing planning and it represents an important basis for developing a sustainable competitive advantage. Dick and Basu [19] conceptualized loyalty as the relationship between the relative attitude toward an entity (brand or service) and patronage behavior. Endogenous customer loyalty may go from a cognitive sense first, then in an affective sense, latter in a conative manner, and finally in a behavioral manner or action loyalty [25]. In general, studies have shown the use of both attitudinal and behavioral measures of loyalty to be an effective way to operationalized loyalty [4, 19]. Four loyalty archetypes based on the cross-classification of attitudinal and behavioral loyalty levels are high (true) loyalty, latent loyalty, spurious loyalty, and low loyalty.

## 3 Conceptualization

Analogous to the stimulus-organism-response (S-O-R) paradigm that environmental stimuli influences an indi-

vidual’s emotional state which in turn affects behavioral responses, the study proposes a structural model relating brand image, perceived value, and customer loyalty, as shown in Fig. 1. Drawing upon the review of literatures, the study hypothesizes that: (1) brand imager affects perceived value; (2) perceived value affects customer loyalty; and (3) brand image affects customer loyalty. The conceptual model for the construct of brand image adopts the normative framework of Park et al. [39] that there are three beneficial dimensions in functional (FUN), symbolic (SYM), and experiential (EXP).

Assessment of perceived value is based on the prevalent SERV-PERVAL scale consisting dimensions of: quality, emotional response, monetary price, behavioral price, and reputation [43]. However, the study takes into account of the fact that the SERV-PERVAL scale may have been more applicable in tourism settings, such as cruise voyages [43] and island tours [13]. In restaurant and retail settings, it may be more appropriate to rephrase the terminology of “behavioral price” by what Zeithaml [59] termed the “nonmonetary price” for the application of this study in a branded café setting. Similarly, the element of “emotional response” may also be more suited for tourism studies where stimulation, novelty, or hedonic feelings are involved. In the context of restaurant, café, and retail stores, it may be more appropriate to categorize the element of “emotional response” as feelings of “affection” toward the store, which was believed by Zeithaml [59] as “high-level abstractions”. Hence, the proposed structural equation model would use dimensions of: perceived quality (PVQ), affection (AFF), perceived monetary price (PMP), perceived nonmonetary price (PNP), and reputation (REP) as latent constructs of perceived value.

Conventional wisdom measures the level of loyalty by its attitudinal and behavioral senses. Higher levels of loyalty would be in a behavioral manner [25, 31] where “repurchase intension” [19] and “positive word-of-mouth” [7, 27] have often been used. Lower levels of loyalty would be in an attitudinal manner [25] where “willingness to pay more” [19, 32] has been used the most. For the application of this study,

**Table 1** Convergent validity of brand image

Constructs and items	Mean	Standardized factor loading	CR	AVE	R <sup>2</sup>
Functional ( $\alpha = .827$ )		<b>.74</b>	<b>.89</b>	<b>.58</b>	<b>.55</b>
1. fashionable impression	3.80	.70			.50
2. product fit the trend	3.84	.67			.48
3. appropriate place for gathering	4.01	.60			.38
4. food quality	3.84	.71			.50
5. professional service image	3.78	.63			.40
6. spacious	3.52	.49			.24
Symbolic ( $\alpha = .816$ )		<b>.67</b>	<b>.91</b>	<b>.56</b>	<b>.45</b>
1. reputable	3.83	.64			.42
2. satisfy consumer's lifestyle needs	3.55	.63			.41
3. leading brand of afternoon tea	3.79	.62			.38
4. status symbol	3.37	.66			.44
5. personal image	3.38	.67			.45
6. brand uniqueness	3.77	.58			.34
7. feeling of prestige	3.54	.70			.49
8. satisfy pleasure-seekers	3.62	.64			.41
Experiential ( $\alpha = .841$ )		<b>.71</b>	<b>.87</b>	<b>.52</b>	<b>.50</b>
1. wide selection	3.59	.57			.32
2. immediate response to questions	3.53	.60			.36
3. good interaction with employees	3.52	.65			.42
4. service quality better than others	3.52	.67			.45
5. booking requirement acceptable	3.63	.59			.35
6. taste satisfaction on desserts	3.69	.63			.40

the model proposes an additional element for attitudinal loyalty, the “cross purchase intention” where measurement takes into account of customers’ intention to purchase other products being offered by the store, as well as examination of switchers or stayers [19, 44, 45]. Based on the aforementioned fundamentals, the four latent constructs of customer loyalty in the model are: repurchase intention (RPI), positive word-of-mouth intention (WOM), price tolerance (PRT), and cross purchase intention (CPI).

#### 4 Methodology

The study centers on the first *Dazzling Café* that opened its business in east downtown of Taipei City in 2010. Aided by an adjacent MRT (metro regional transit) station, the famous district is known for its notable businesses in the *Breeze Center* (Taiwanese shopping mall), the *Pacific SOGO Department Stores*, the *ZARA* (world’s largest apparel retailer), the *International Commercial Bank of China*, and similar others. Café and espresso lounges are flourishing in the area due to consumers’ demands for commerce social activities or taking a break from their hectic shopping spreads. The distinctive culture of fierce competitions in the area is what shapes the importance of branding among café competitors, thereby the interest of the study.

#### 4.1 Instrument

A questionnaire was developed for the measurement of brand image, perceived value, customer loyalty, and background information of the respondents visiting *Dazzling Café*. Three latent constructs were used to evaluate “brand image”: functional (six items), symbolic (eight items), and experiential (six items), as shown in Table 1. Items for the “functional” element of brand image were adapted from concepts by Aaker [1], Weiss et al. [56], Berens et al. [4], and Sierra et al. [5, 46]. The “functional” scale asks respondents whether:

- (1) the café gives fashionable impression;
- (2) products fit the trend;
- (3) the café provides an appropriate place for gathering;
- (4) food has high quality;
- (5) service image is professional; and
- (6) the café is spacious.

Items for the “symbolic” element of brand image were adapted from concepts by Souiden et al. [50], Anisimova [2], Sierra et al. [42], Bian and Moutinho [4], Hwang & Hyun [23], and Mann and Ghuman [34]. The “symbolic” scale asks respondents whether:

**Table 2** Convergent validity of perceived value

Constructs and items	Mean	Standardized factor loading	CR	AVE	R <sup>2</sup>
Perceived quality ( $\alpha = .736$ )		<b>.75</b>	<b>.92</b>	<b>.62</b>	<b>.56</b>
1. service attitude is good	3.74	.66			.44
2. reliable service quality	3.76	.66			.44
3. comprehensive emergency preparation	3.51	.47			.22
4. customize individual's needs	3.48	.61			.37
5. delicious dish	3.72	.67			.45
6. professional service knowledge	3.45	.65			.42
7. food's appealing appearance	4.09	.51			.26
Affection ( $\alpha = .752$ )		<b>.79</b>	<b>.95</b>	<b>.75</b>	<b>.62</b>
1. pleasure feeling	3.92	.76			.58
2. enjoyable ambience	3.88	.67			.45
3. good sanitary environment	3.84	.67			.45
4. comfortable dining environment	3.84	.75			.56
5. relaxing background music	3.70	.72			.51
6. attractive décor	3.77	.63			.40
Perceived monetary price ( $\alpha = .739$ )		<b>.81</b>	<b>.90</b>	<b>.60</b>	<b>.66</b>
1. reasonable price	3.25	.76			.58
2. minimum spending acceptable	3.26	.82			.67
3. in line with local cost	3.50	.62			.38
4. value for money	3.03	.64			.41
5. preference despite higher cost	3.06	.68			.46
6. affordable price	3.66	.68			.46
Perceived nonmonetary price ( $\alpha = .728$ )		<b>.72</b>	<b>.87</b>	<b>.53</b>	<b>.52</b>
1. swift service	3.44	.78			.61
2. menu is crystal clear	3.70	.83			.69
3. parking convenience	2.98	.70			.49
4. location convenient transportation-wise	3.53	.86			.74
5. well-designed layout for movement	3.51	.82			.67
6. fast checkout	3.65	.69			.48
Reputation ( $\alpha = .917$ )		<b>.48</b>	<b>.63</b>	<b>.46</b>	<b>.32</b>
1. is reputable	3.86	.87			.42
2. is well thought of	3.82	.88			.46

- (1) the café is reputable;
- (2) the café satisfies consumers' lifestyle needs;
- (3) the café is a leading brand of afternoon tea;
- (4) the café fits consumers' status symbol;
- (5) the café fits consumers' personal image;
- (6) the café has brand uniqueness;
- (7) the café gives consumers the feeling of prestige; and
- (8) the café satisfies pleasure-seekers.

Items for the “experiential” element of brand image were adapted from concepts by Grewal et al. [21], Keller and Aaker [29], Pan and Zinkhan [38], and Danes et al. [15]. The “experiential” scale asks respondents whether:

- (1) the café provides wide selection of products;

- (2) the café responds to customers' questions in a speedy fashion;
- (3) good interaction exists between customers and employees;
- (4) service quality is better than those of others;
- (5) requirement of booking is acceptable to the consumers; and
- (6) desserts satisfy consumers' taste.

Five latent constructs were used to evaluate “perceived value”: perceived quality (7 items), affection (6 items), perceived monetary price (6 items), perceived nonmonetary price (6 items), and reputation (2 items), as shown in Table 2. Items for “perceived quality” were adapted from concepts by Oh [36], Srinivasan et al. [51], Patrick [41], and Orel and

Kara [37]. The “perceived quality” scale asks respondents whether:

- (1) employees’ service attitude is good;
- (2) service quality is reliable;
- (3) the café’s emergency preparation is comprehensive;
- (4) the café customizes individual’s needs;
- (5) the café provides delicious dish;
- (6) employees’ service knowledge is professional; and
- (7) food’s appearance is appealing.

Items for “affection”, “perceived monetary price”, “perceived nonmonetary price”, and “reputation” were adapted from concepts by Sweeney and Soutar [54], Petrick [40,41], Chow et al. [13], and Chen and Lu [12]. The “affection” scale asks respondents whether:

- (1) feeling of pleasure;
- (2) dining ambience is enjoyable;
- (3) good sanitary environment;
- (4) dining environment is comfortable;
- (5) background music is relaxing; and
- (6) décor is attractive.

The “perceived monetary price” scale asks respondents whether:

- (1) price of dining is reasonable;
- (2) minimum spending requirement is acceptable;
- (3) pricing is in line with the local cost;
- (4) the café offers value for money;
- (5) preference for the café despite higher cost; and
- (6) pricing is affordable.

The “perceived nonmonetary price” scale asks respondents whether:

- (1) service is swift;
- (2) menu is crystal clear;
- (3) parking is convenient;
- (4) location is convenient transportation-wise;
- (5) layout for movement is well-designed; and
- (6) fast checkout.

The “reputation” scale asks respondents whether:

- (1) the café is reputable, and
- (2) the café is well thought of.

Four latent constructs were used to evaluate “customer loyalty”: repurchase intention (five items), positive word-of-mouth (three items), price tolerance (four items), and cross purchase intention (four items), as shown in Table 3. Items

for “repurchase intention” were adapted from concepts by DeWitt et al. [18], and Zhang and Bloemer [58]. The “repurchase intention” scale asks respondents whether:

- (1) satisfy with the brand;
- (2) willing to revisit;
- (3) purchase frequently;
- (4) intent to buy more; and
- (5) first choice among options presented the next time.

Items for “positive word-of-mouth” were adapted from concepts by Zhang and Bloemer [58] and Brocato et al. [6]. The “positive word-of-mouth” scale asks respondents whether:

- (1) willing to promote;
- (2) able to identify and express its strengths; and
- (3) willing to recommend.

Items for “price tolerance” were adapted from concepts by DeWitt et al. [18], and Zhang and Bloemer [58]. The “price tolerance” scale asks respondents whether:

- (1) average cost of dining is acceptable;
- (2) pricing being higher than those of others is acceptable;
- (3) pricing being raised due to inflation is acceptable; and
- (4) willing to pay more for better service quality.

Items for “cross purchase intention” were adapted from concepts by DeWitt et al. [18]. The “cross purchase intention” scale asks respondents whether:

- (1) willing to buy the brand’s other products;
- (2) willing to buy the brand’s new products;
- (3) the café is still the first choice despite competitors’ tempting promotion; and
- (4) the café is still first choice despite competitors’ lower price.

## 4.2 Reliability

A pilot test was conducted to test the internal consistency of the questionnaire items. The first draft of the survey instrument was distributed to 60 randomly selected customers who dined at the *Dazzling Café* from March 1<sup>st</sup> to 10<sup>th</sup> of 2015. A total of 56 valid surveys were collected. A reliability analysis (Cronbach’s alpha) was performed for “brand image”, “perceived value”, and “customer loyalty”, resulting in a robust  $\alpha$  of .714, .692, and .703, respectively. Popular opinion believes an alpha of 0.7 or higher is considered acceptable as a good indication of reliability. Based on the results of the pilot test and feedbacks from *Dazzling Café*, the final version of the survey instrument was then developed by ways of item analysis.

**Table 3** Convergent validity of customer loyalty

Constructs and items	Mean	Standardized factor loading	CR	AVE	R <sup>2</sup>
Repurchase intention ( $\alpha = .756$ )		<b>.91</b>	<b>.93</b>	<b>.68</b>	<b>.71</b>
1. brand satisfaction	3.73	.68			.46
2. revisit willingness	3.64	.72			.52
3. frequent purchase	2.84	.73			.53
4. intent to buy more	3.00	.83			.69
5. first choice among options the next time	3.16	.84			.71
Positive word-of-mouth intention ( $\alpha = .793$ )		<b>.78</b>	<b>.92</b>	<b>.79</b>	<b>.61</b>
1. willingness to promote	3.48	.83			.69
2. able to identify and express its strength	3.46	.81			.66
3. willingness to recommend	3.53	.87			.76
Price tolerance ( $\alpha = .784$ )		<b>.83</b>	<b>.92</b>	<b>.75</b>	<b>.67</b>
1. average cost of dining acceptable	3.41	.65			.42
2. accept pricing higher than others	3.06	.87			.76
3. accept pricing raised due to inflation	2.93	.88			.77
4. willing to pay more for better service quality	2.98	.86			.74
Cross purchase intention ( $\alpha = .823$ )		<b>.86</b>	<b>.91</b>	<b>.72</b>	<b>.74</b>
1. willing to buy the brand's other products	3.07	.76			.58
2. willing to buy the brand's new products	3.29	.76			.58
3. resist competitors' promotions	2.94	.86			.76
4. resist competitors' lower prices	2.98	.83			.69

### 4.3 Data acquisition

The target population is all the customers who dined at *Dazzling Café* from April 20<sup>th</sup> to May 17<sup>th</sup> of 2015. Confidence interval approach was used to determine the sample size. The formula for obtaining 95% accuracy at the 95% confidence level is:

$$n = \frac{z^2 p(1-p)}{e^2} = \frac{1.96^2(0.5 \times 0.5)}{0.05^2} = 384$$

where  $z$  is the standard error associated with chosen level of confidence at 95%,

$p$  is the estimated variability in the population at 50%, and  $e$  is the acceptable error  $\pm 5\%$  for the desired accuracy of 95%.

However, Sudman [53] proposed that the sample size should be between 500 and 1000 for regional studies. As a rule-of-thumb, the sample size should be ten times that of the item number for factor analysis. Hence, a sample size of 630 was desired based on 63 items where respondents were asked to rate each item on a five-point Likert scale (1 = strongly disagree, 2 = tend to disagree, 3 = neither agree nor disagree, 4 = tend to agree, and 5 = strongly agree).

In the study, 668 valid returns were obtained from 800 distributed surveys, about 84% effective response. A vast majority (68.8%) of the respondents are female which was

expected as there has always been a significantly gender discrepancy among the café's patrons. Also in the majority included the respondent's age group (78.3% under 30 years old), education (85.3% attended college), occupation (72.7% as students), and average consumption (61.6% spent less than NT\$500 per person per visit, equivalent of US\$16.7).

### 4.4 Data analysis

Cronbach's alpha scores for scales of "brand image", "perceived value", and "customer loyalty" are .836, .742, and .791, respectively. Under "brand image" (Table 1), Cronbach's alpha scores for the latent constructs of "functional benefit", "symbolic benefit", and "experiential benefit" are .827, .816, and .841, respectively. Under "perceived value" (Table 2), Cronbach's alpha for the latent constructs of "perceived quality", "affection", "perceived monetary price", "perceived nonmonetary price", and "reputation" are .736, .752, .739, .728, and .917, respectively. Under "customer loyalty" (Table 3), Cronbach's alpha for the latent constructs of "repurchase intention", "positive word-of-mouth", "price tolerance", and "cross purchase intention" are .756, .793, .784, and .823, respectively. All scores exceeded 0.70 which indicates the instrument has achieved good reliability.

Test of the conceptual model that examines the antecedents of customer loyalty was accomplished by the confirmatory factor analysis (CFA) and structural equation modeling

(SEM). Data were statistically analyzed using SPSS 20.0 statistical software for Windows to confirm convergent validity of each construct. For the construct of brand image, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded 0.86, while Bartlett's test of sphericity showed significant values ( $\chi^2 = 1542.774$ , d.f. = 625,  $\chi^2/\text{d.f.} = 2.47$ ). Likewise, each of the other two constructs yielded adequacy (perceived value: KMO = 0.78,  $\chi^2 = 1884.533$ , d.f. = 637,  $\chi^2/\text{d.f.} = 2.96$ ; and customer loyalty: KMO = 0.81,  $\chi^2 = 1681.208$ , d.f. = 669,  $\chi^2/\text{d.f.} = 2.51$ ). AMOS 16.0 statistical software for Windows was then used for the SEM analysis to test both the theoretical relationships in the model and the overall model fit with regard to the data. All parameters were estimated using the maximum-likelihood estimation (MLE) method. Hypotheses were tested to determine the link directions and significance of relationships.

## 5 Results

The structural equation modeling (SEM) procedure was performed to test the relationships between the three constructs in the proposed model. Brand image, perceived value, customer loyalty were tested to determine how well the proposed model fitted the data. AMOS structural equation modeling (SEM) was employed with the maximum likelihood (ML) method of parameter estimation. The assumptions of the analysis were thoroughly checked prior to the main analyses. First of all, the collected valid sample was large enough ( $n = 668$ ), the scales of observed indicators were continuous variables with neither of significant outlier nor missing values, and the normal distribution of the observed variables was met according to the results of skewness and kurtosis analysis.

### 5.1 Confirmatory factor analysis

The initial measurement items for all study variables (63 items) were subjected to the confirmatory factor analysis (CFA), as shown in Tables 1, 2, and 3. The convergent validity was assessed separately through examining the Cronbach's alpha ( $\alpha$ ), standardized factor loadings ( $\lambda$ ), composite reliability (CR), and average variance extracted (AVE). The results showed that all measurement indicators significantly loaded on their corresponding construct ( $\lambda$  ranging from .67 to .74 at  $\alpha = .836$  for brand image,  $\lambda$  ranging from .48 to .81 at  $\alpha = .742$  for perceived value, and  $\lambda$  ranging from .83 to .91 at  $\alpha = .791$  for customer loyalty), which met the suggested criterion of  $\lambda > 0.45$ . Composite reliability (CR) is analogous to Cronbach's alpha coefficient and reflects the internal consistency of the indicators measuring each CFA factors. Composite reliability of each latent variable ranged from .87 to .91 within brand image, from .63 to .95 within perceived value, and from .91 to .93 within customer loyalty, which

exceeded the recommended threshold level of .60. Moreover, the average extracted variance (AVE) for each of the dimensions exceeded the recommended level of .50 where AVE ranged from .52 to .58 for brand image, from .46 to .75 for perceived value, and from .68 to .79 for customer loyalty. Thus, convergent validity is achieved by the measurement scale.

Discriminant validity was also assessed by comparing the AVE of each individual latent construct with shared variances between the associated latent constructs. Discriminant validity is achieved when the AVE of an individual latent construct is higher than the shared variances. Comparing the normalized values of inter-construct correlations and square roots of the average extracted variances shown on the diagonal of the matrix in Table 4, the results indicate adequate discriminant validity. These results are evidence of the measurement model meeting all psychometric property requirements. Each of the latent constructs is distinct and unidimensional for testing of the structural relationships.

In brand image, inter-construct correlations showed latent variables of functional (FUN) and experiential (EXP) are correlated higher than other pairs involving the variable of symbolic (SYM). In perceived value, reputation (REP) correlates highly with any other dimensions. In a secondary note, perceived quality (PVQ) correlates higher than other pairs except those involving reputation (REP). In customer loyalty, latent constructs of repurchase intention (RPI) and positive word-of-mouth intention (WOM) correlate higher than any other pairs.

### 5.2 Structural model

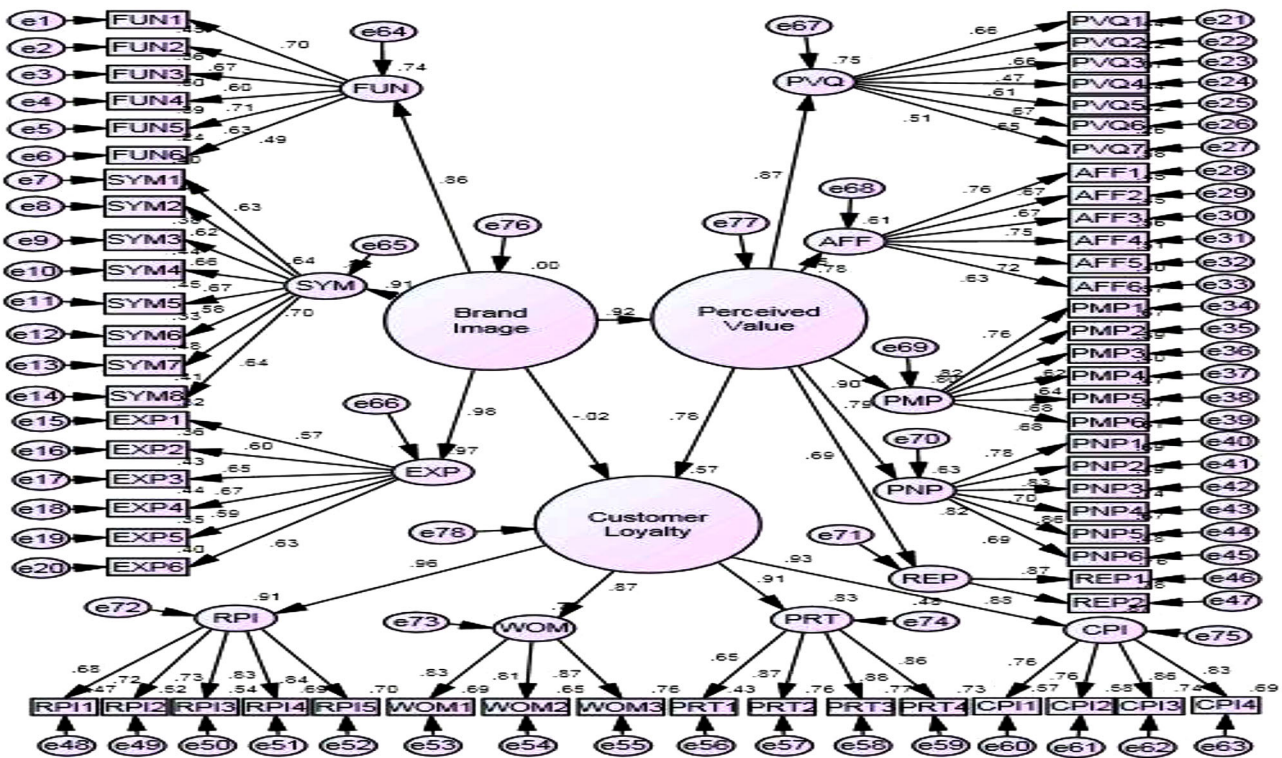
The main purpose of the study is to examine the interrelationships between brand image, perceived value, and customer loyalty in a branded café setting. A structural equation model with the maximum likelihood method was carried out to validate the relationships among the three constructs of the proposed model. The results of maximum likelihood estimation provided an adequate fit to the data with accepted exhortation levels. The model chi-squared ( $\chi^2$ ) fit statistics showed 1137.462 with 531 degrees of freedom (d.f.) where the normed chi-square ( $\chi^2/\text{d.f.} = 2.14$ ) met the cutoff criterion of less than 3.0. Other indicators of model adequacy also met the criteria as well, goodness-of-fit index (GFI) = .936 > .90 [55], adjusted GFI (AGFI) = .944 > .90, normed fit index (NFI) = .904 > .90, comparative fit index (CFI) = .935 > .90, and root mean square error of approximation (RMSEA) = .047 < .08.

The standardized structural model as estimated by AMOS is shown in Fig. 2. The first path hypothesis (brand image  $\rightarrow$  perceived value) is supported with an optimal beta ( $\beta$ ) level of .92 and  $t$ -value at 10.24 ( $p < .001$ ), as shown in Table 5. The second path hypothesis (perceived value  $\rightarrow$



**Table 4** Correlation matrix of latent constructs

	FUN	SYM	EXP	PVQ	AFF	PMP	PNP	REP	RPI	WOM	PRT	CRT
Brand image												
Functional (FUN)	1											
Symbolic (SYM)	.904	1										
Experiential (EXP)	.953	.853	1									
Perceived value												
Perceived quality (PVQ)				1								
Affection (AFF)				.844	1							
Perceived monetary price (PMP)				.837	.687	1						
Perceived nonmonetary price (PNP)				.744	.616	.728	1					
Reputation (REP)				.942	.762	.855	.878	1				
Customer loyalty												
Repurchase intention (RPI)									1			
Positive WOM intention (WOM)									.908	1		
Price tolerance (PRT)									.750	.762	1	
Cross purchase intention (CRT)									.763	.790	.799	1



**Fig. 2** Results of structural equation modeling

customer loyalty is also supported with an optimal level ( $\beta = .77$ ,  $t$ -value = 7.58,  $p < .001$ ). However, the third path hypothesis (brand image  $\rightarrow$  customer loyalty) is rejected at  $\beta = -.02$  and  $t$ -value =  $-.47$ . Although there is no direct effect from brand image to customer loyalty, brand image indirectly affects customer loyalty via perceived value ( $.92 \times .77 = .71$ ), nonetheless.

Moreover, the comprehensive model testing of the twelve inner dimensions of latent constructs are summarized in Table 6, where the experiential (EXP) attribute demonstrates the highest path coefficient ( $\beta = .98$ ) in brand image (BI); the perceived monetary price (PMP) and perceived quality (PVQ) attributes demonstrate the higher path coefficients ( $\beta = .90$  and  $\beta = .87$ , respectively) in perceived value (PV);

**Table 5** Structural paths of inter-constructs

Hypothesis	Structural coefficients	Standard error	<i>t</i> -value	Results
Brand image → perceived value	.92	.13	10.24***	Support
Perceived value → customer Loyalty	.77	.12	7.58***	Support
Brand image → customer loyalty	−.02	.08	−.47	Reject

\*\*\*  $p < .001$ **Table 6** Structural paths of inner dimensions

Inner dimensions	$\beta$	<i>t</i> -value	Goodness-of-fit statistics
BI-FUN	.86	13.07***	Normed $\chi^2 = 2.47$ ; GFI = .928; NFI = .926; CFI = .921; RMSEA = .049
BI-SYM	.91	11.59***	
BI-EXP	.98	12.06***	
PV-PVQ	.87	8.23***	Normed $\chi^2$ /d.f. = 2.96; GFI = .919; NFI = .916; CFI = .906; RMSEA = .064
PV-AFF	.78	9.82***	
PV-PMP	.90	13.21***	
PV-PNP	.79	14.03***	
PV-REP	.69	14.45***	Normed $\chi^2 = 2.51$ ; GFI = .923; NFI = .920; CFI = .918; RMSEA = .052
CL-RPI	.96	12.49***	
CL-WOM	.87	11.05***	
CL-PRT	.91	8.83***	
CL-CPI	.93	8.84***	

\*\*\*  $p < .001$ **Table 7** Demographic significances of the mean

Gender	Male	Female	<i>F</i> -value	<i>P</i>
BI-FUN	3.70	3.82	3.840	.010*
BI-EXP	3.55	3.58	2.774	.041*
PV-AFF	3.27	3.29	3.083	.027*
CL-CPI	3.15	3.02	4.154	.006**
Age group	Under 30 years old	Over 30 years old		
PV-PVQ	3.55	3.64	4.389	.013*
PV-AFF	3.30	3.26	4.004	.019*
PV-PMP	3.62	3.58	3.345	.036*

\*  $p < .05$ ; \*\*  $p < .01$ 

and the repurchase intention (REP) attribute demonstrates the highest path coefficient ( $\beta = .96$ ) in customer loyalty (CL). Conversely, the functional (FUN) attribute demonstrated the lowest path coefficient ( $\beta = .86$ ) in BI, the reputation (REP) attribute demonstrates the lowest path coefficient ( $\beta = .69$ ) in PV, and the positive word-of-mouth intention (WOM) attribute demonstrates the lowest path coefficient ( $\beta = .87$ ) in CL.

### 5.3 Demographic significance

Having identified all structural paths associated with brand image, perceived value, and customer loyalty, it is desired to know if significant differences exist among demograph-

ics. With regards to the respondents' gender, it was found that female customers have significantly higher views toward functional attributes (FUN, six items) and experiential attributes (EXP, six items) than their male counterparts do, as shown in Table 7. In the construct of perceived value, only affection attributes (AFF, six items) demonstrated higher statistical significance by female patrons. In the construct of customer loyalty, male respondents have significantly higher cross purchase intention attributes (CPI, four items) than their female counterparts do.

With respect to the respondents' age, mature patrons (over 30 years old) have statistically higher views toward perceived quality (PVQ, seven items). Conversely, younger patrons (under 30 years old) have statistically higher views toward

attributes of affection (AFF, six items) and perceived monetary price (PMP, six items). With respect to respondents' education, occupation, and average spending per person per visit, no statistical significance was identified.

## 6 Discussions

The study set out to examine determinant attributes that influence acquisition of customer loyalty in a branded café setting. By ways of a proposed structural modeling approach, “customer satisfaction” and “service quality” were intentionally omitted as independent constructs of the simplified model. Customer satisfaction has hitherto been considered continuous with customer loyalty or at least as a prerequisite to acquisition of customer loyalty. Nonetheless, previous studies have also shown nonlinear and asymmetric relationships between customer satisfaction and customer loyalty, as well as between restaurant quality attributes (service and ambience quality) and customer behavioral intentions [9]. Hence, the nonlinearity paved the way for the base of the simplified structural model.

Macro aspect of the study validated the first hypothesis that brand image significantly affects ( $\beta = .92$ ) perceived value in a branded cafe setting. The notion that brand image affects perceived value is echoed by findings in the context of restaurants [46, 48] and casinos. A caveat to be made here is that brand prestige cannot result in the managerial outcome of customers' perceived price fairness in the context of luxury restaurants [26].

The second validated hypothesis is that perceived value significantly affects ( $\beta = .77$ ) customer loyalty. The notion of perceived value affecting customer loyalty or behavioral intention is similarly echoed by the study of coffee outlets [25] and hotel brands [50], as well as restaurants [44, 45] and casinos. However, if service quality is considered an equivalent of perceived value or at least a part of perceived value, the influence of service quality on customer loyalty was found insignificant in hotel settings [30] but still significant in casino settings [49].

The third hypothesis was not validated in which the direct effect from brand image to customer loyalty is insignificant ( $\beta = -.02$ ). However, brand image indirectly affects customer loyalty via perceived value ( $\beta = .71$ ). The insignificance of direct effect from brand image to customer loyalty is most interesting but understandable when compared with studies of other hospitality services. Across the board, image has a positive effect on customer loyalty or behavioral intention in hotel settings [28, 30], restaurant settings [39, 46], and casinos. Contrary to franchised quick-casual restaurants [44], the effect of restaurant image on behavioral intention via customer satisfaction is insignificant in an authentic upscale restaurant [47].

Micro aspect of the study examines the role of determinant attributes on the influence of customer loyalty in a branded café setting. Customers' experiential (EXP) attribute, perceived monetary price (PMP), and perceived quality (PVQ) played higher roles on their respective constructs which mediate the influence of loyalty determinants. Conversely, functional (FUN) attribute, affection (AFF), and reputation (REP) played lesser roles of contributing determinants. Measures of functional (FUN) and affection (AFF) attributes are composed predominately items of the café's atmosphere, ambience, or physical environment which are intangible factors of the store. The finding aligns with existing literatures that intangible factors pay minimal significance to the influence of customer satisfaction, customer loyalty, or behavior intention in the context of restaurants and guesthouses [14, 16, 24]. Only in fashion apparel retailers do physical environments exhibit more influence on customer emotion and satisfaction.

Neglecting the importance of environment elements would have been a colossal mistake in settings of fine dining where customers typically expect high environmental quality, which was evidenced by the asymmetric impact of attribute performance among low- and high-end restaurants [20, 23, 33, 50]. Since casinos may be considered an upscale setting, intangible traits such as supporting facilities and staff service were identified dimensions of casino quality which significantly affect loyalty [22, 35]. Not to forget about tangible factors, literatures have overwhelmingly identified food quality, food range, and price (value for money) to be significant determinants of customer satisfaction, customer loyalty, or behavioral intention [10, 11, 30, 49]. These literatures further reinforce the micro aspect of the finding that perceived monetary price (PMP) and perceived quality (PVQ) played higher roles of loyalty determinants in a branded café setting.

The study also explored the possibility of demographic differences by one-way ANOVA. The findings showed that there are no statistical differences of the response with respect to customers' education, occupation, and average spending per person per visit to the branded café. With respect to gender, female patrons tend to have higher views toward functional (FUN) and experiential (EXP) attributes of brand image, as well as affection (AFF) attributes of perceived value. The finding is consistent with the results of Kwun [30], that female respondents scored higher mean scores across all variables (perceived value, food quality, service quality, menu, facility, and satisfaction) than their male counterparts. However, the study identified the phenomenon that male patrons scored higher in attributes of cross purchase intention (CPI) than females.

Regarding age, it was found that older customers (over 30 years old) tend to have higher perceived quality (PVQ) toward the branded café. On the other hand, younger customers (under 30 years old) have higher scores in attributes

of affection (AFF) and perceived monetary price (PMP). To some extent, the finding is in line with the study of Peng et al. [42], that college students are value seekers and highly price conscious, and they care about the best value for the money. In all, the finding with respect to demographics paves the way for segmenting potential customers in branded café settings.

## 7 Conclusions

### 7.1 Theoretical implications

The study has achieved its goal of simplifying the structural relationship modeling of the stimulus-organism-response (S-O-R) linkage for loyalty acquisition in a branded café setting by ways of brand image, perceived value, and customer loyalty. Although the direct effect from brand image to customer loyalty is insignificant, brand image indirectly affects customer loyalty via perceived value. Brand image may have a direct effect on customer loyalty in the context of casinos, hotels, or apparel stores; the study reaffirms the notion that customers value tangible factors (e.g. food quality, value for money) much more than intangible factors (e.g. environment) in the foodservice industry. Nonetheless, enhancing experiential (EXP) attributes of brand image, as well as attributes of perceived monetary price (PMP) and perceived quality (PVQ) would lead to increased customer loyalty and ultimately the café profitability and competitive advantages.

From the simplified structural model, it is validated that perceived quality may be treated as a subset of perceived value in a hospitality context. Moreover, the result reaffirmed the notion that customer satisfaction may be bypassed as an independent construct leading to customer loyalty. However, it should be noted that acquisition of customer satisfaction may not guarantee customer loyalty but failure of acquiring customer satisfaction surely will not lead to customer loyalty. Nonetheless, measurement of the satisfaction level is hidden with perceived value. Thus, omission of customer satisfaction as an independent construct is validated in the study.

### 7.2 Managerial implications

The study sheds new light on customer segmentation in the branded café context. It was found that females have higher functional (FUN) and experiential (EXP) attributes of brand image, as well as affection (AFF) attributes of perceived value. Affection attributes are primary intangible traits such as the café's ambience, environment, and décor. The implication is that female patrons value intangible traits more than male patrons while males may value tangible traits more than females. Managers should pay attention to intangible traits to attract female customers while improving tangible traits to attract male customers.

Male patrons have higher cross purchase intention (CPI) than females. The implication is that male customers are more inclined to experience different products. Thus, managers should target male customers when exploring new products. Moreover, older customers have higher perceived quality (PVQ). Older adults may have higher taste for product quality than younger customers. On the other hand, younger customers have higher affection (AFF) and perceived monetary price (PMP) in the context of perceived value. The implication is that both tangible and intangible traits are more important to younger customers than their older counterparts. Overall, other demographic indicators are inconclusive due to unbalanced size of the sample's demographic profile.

### 7.3 Limitation and future study

Although the sample size ( $n = 668$ ) is large enough statistically, the survey was taken at one branded café store in Taipei City where homogeneity is a concern for generalization of the conclusion. Demographic profile showed the majority of the respondents were aged below 30 and with college education. Obviously, these segments of the population tend to be more willing to try new products. Whether novelty wears off over time that ultimately affects brand image is a concern. Thus, the study recommends further study in a demographic approach by testing the moderating effects of respondents' demographics on the simplified structural model where samples need to be taken across branch stores of the branded café's in different locations.

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**Yao-Hsu Tsai** received his Ph.D in Hospitality, Health and Leisure Management from the School of Computer Science and Information Systems at Central University in 2009. He currently is an Assistant Professor in Chung Hua University, Taiwan. His research areas are Big Data, Social Network, Consumer Satisfaction, Hotel Management, and Leisure Management.