

# Antecedents and consequences of perceived customer value in the restaurant industry

## A preliminary test of a holistic model

Vincent M. Thielemann

*Hochschule Heilbronn, Heilbronn, Germany*

Michael C. Ottenbacher

*Kansas State University, Manhattan, Kansas, USA, and*

Robert James Harrington

*School of Hospitality Business Management, College of Business,  
Washington State University, Richland, Washington, USA*

### Abstract

**Purpose** – The purpose of this paper is to identify the antecedents of perceived customer value, such as the perceived quality and perceived sacrifices, and the effects on customer satisfaction and customer loyalty (CL) in the restaurant industry.

**Design/methodology/approach** – Based on an extensive literature review, a research model and questionnaire were designed. To assess the hypothesised relationships, data were collected in a field survey. Partial least squares regression (a variance-based regression analysis of SEM) was selected to analyse the relationships within the research model.

**Findings** – The findings of this study indicate that the perceived monetary sacrifice (PMS) and perceived service quality were found to be antecedents of perceived value (PV), whereas PMS was the major precursor of PV. Further, PV was found to have a substantial influence on customer satisfaction and CL.

**Originality/value** – The study provides a better understanding of the price–value–satisfaction–loyalty relationships in the restaurant context in a more holistic sense and recommendations to move this research stream forward.

**Keywords** Customer loyalty, Customer satisfaction, Perceived customer value, Monetary sacrifice

**Paper type** Research paper

### Introduction

Historically, most companies have relied on the supremacy of their products or services to distinguish themselves from competitors and determine prices based on their costs or based on the prices of their competition. Many companies, however, have been looking for new ways to distinguish themselves with more focus on customers rather than only their products, services or competition (Rao and Kartono, 2009). Of all the marketing decisions, the determination price is the major decision that directly affects revenue and yield. In customer-centric pricing (value-based pricing), the customers' value perceptions are in the focus. In general, the delivery of value has evolved to become the primary goal of businesses, rather than generating profit (Reichheld and Teal, 1996). Thus, the question is not whether but how companies compete in delivering value (Harrington *et al.*, 2017).

---

© Vincent M. Thielemann, Michael C. Ottenbacher and Robert James Harrington. Published in *International Hospitality Review*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>



The restaurant industry is a highly competitive market in which customers cannot evaluate the purchase before consumption and meets the prerequisites to implement value-based pricing (Holden and Burton, 2008). The application of value-based pricing in other industries has provided evidence that it can increase revenues and affect customer's purchase behaviour. In spite of the stated importance of delivering value, practitioners and researchers still have a dissonance on the antecedents and consequences of perceived value (PV). Therefore, the importance of the current study lies in identifying some of the key antecedents and consequences related to restaurants' PV and the resulting customer behaviours. A clearer understanding is critical for decisions on pricing strategies, value proposition strategies and restaurant success.

### Literature review

Today's customers have a strong value orientation seeking quality and an outcome that exceeds the price they have paid for a product or service. Many companies and recent research has suggested setting prices based on perceived customer value rather than traditional cost-based pricing (Chandler and Lusch, 2015; Harrington *et al.*, 2017; Hinterhuber and Liozu, 2012; Zheng and Forgacs, 2017). Thus, pricing should be not only about setting prices based on costs and the competition but about justifying a price based on PV. While value has numerous definitions in the literature, it appears clear that value must be communicated and delivered to meet or exceed customer expectations (Simon, 2015). As Kotler and Keller (2012) stated, "the key to perceived-value pricing is to deliver more unique value than the competitor [...]" (p. 421).

The concept of customer value appears to be impacted by the concepts of quality, benefits, sacrifices and utility; these constructs are often not clearly defined and subject to individual perceptions (Woodruff, 1997). Harrington *et al.* (2017) suggested a model of value-based strategies for quick service restaurants (QSR) that included "7 Ps" tied to marketing decisions and consumer value assessments that included differentiation from competitors, relevance to fulfilling consumer needs, esteem provisions (quality and reliability), and consumer knowledge of the brand. While the concept of consumer value and value pricing has been studied for several decades, defining value and understanding perceptions of value by consumers in the restaurant experience remains a challenge for both practitioners and researchers.

The following sections provide an overview of earlier study of value-based pricing, customer value, PV and quality, perceived sacrifices and consumer outcomes.

#### *Customer value and value-based pricing*

With no consistent definition, a major problem in customer value research is the complexity of the construct and interdependence of the PV components, such as quality, utility, price and values (Lapierre *et al.*, 1999). Zeithaml (1988) defined value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (p. 14). Other researchers extended this to a multi-dimensional approach with an interdependence of the perceived price, quality, benefit and sacrifice (Babin *et al.*, 1994; Sweeney and Soutar, 2001). Recent research on restaurants indicated a weakness remains on assessing value strategies but provided support for the notion that value is subjective and need-based (Harrington *et al.*, 2017). Recent research in services suggested that the assessment of value is not straightforward with links to other stakeholders' processes as well as personal factors of consumers (Chandler and Lusch, 2015).

Perceived value pricing is defined as "a customer-centric approach [...] that prioritizes the customer's product valuation above cost, competition and other considerations" (Rao and Kartono, 2009, p. 29). When setting prices, the customer's PV, and not what the

customer is willing to pay, forms the basis of this pricing approach. While cost-plus pricing sets a price floor, perceived value pricing sets an upper price ceiling that reflects the PV (Armstrong *et al.*, 2016). Hence, the major deficit of cost-plus pricing is it neglects the fact that customers may be willing to pay more than the company cost requirements – if they perceive the value to be greater than the price (Chandler and Lusch, 2015; Schlissel and Chasin, 1991).

Traditional cost-plus pricing schemes are thought to utilise five pricing strategy drivers: an awareness of the value that the services and products provide, an understanding of the service life cycle, the economics of the branch, competitors' reactions and a company consensus on a pricing strategy (Holden and Burton, 2008). The process of using perceived value pricing starts with the identification of customer needs, then prices are determined based on the value provided. Afterwards, the provider tries to minimise costs incurred by improving the processes based on customer needs (Armstrong *et al.*, 2016).

The PV in attributes such as service, atmosphere, food and prices in the consumption process has been shown to vary across restaurant types (Ha and Jang, 2012). Harrington *et al.* (2012) found the value placed on various attributes impacted positive or negative experiences and varied based on consumer age, gender and dining frequency. Arora and Singer (2006) found that higher levels of service and product quality positively influenced PV, whereas price negatively influenced PV. Thus, the need to understand these trade-offs in the value-based pricing process cannot be overstated.

Kim *et al.* (2012) suggested "brand attitude should be an antecedent of customer satisfaction and behavioural intentions when it is treated as a pre-purchase construct" (p. 407). These competing propositions raise the question of whether brand attitude is to be considered as an antecedent or an outcome of customer satisfaction that is formed over time. As this study focuses on post-purchase behaviour, brand attitude is thought to be a consequence of customer satisfaction and antecedent of PV in line with Oh (2000), Babin *et al.* (1994) and Harrington *et al.* (2017).

#### *Perceived quality*

Three of the main characteristics of a service (intangibility, inseparability and heterogeneity) have been shown to make it difficult to assess customers' service evaluation (Parasuraman *et al.*, 1985). The perishability characteristic along with the other three has been shown to be related to pricing. Adapting earlier approaches (i.e. Lovelock, 1983; Nelson, 1974), Parasuraman *et al.* (1985) developed a popular model to assess perceived service quality (SERVQUAL) and argued these determinants of service quality may overlap and are subject to individual judgement on their importance.

This early service quality model has since been adapted to a variety of service contexts such as DINESERV (Kim *et al.*, 2009), SEVRPERF (Jain and Gupta, 2004), HOLSTAT (Tribe and Snaith, 1998) and others indicating similarities and differences based on context. Recent research by Dasu and Chase (2013) proposed the need to design service operations to impact perceived quality via emotions and consumers' hedonic state. Thus, perceived service quality in restaurants appears to have an impact on perceived value (Alhelalat *et al.*, 2017), be multi-dimensional in nature and an aggregate of interdependent attributes (Sánchez-Fernández and Iniesta-Bonillo, 2007). PV and quality appear idiosyncratic in nature with opportunities for firm control over various intangible aspects of the service process, assuming firms can identify key antecedents of PV and consumer behaviours.

#### *Perceived non-monetary and monetary sacrifice*

Following Zeithaml (1988), value has been defined as a gap between what the customer receives (gets) and what the customer sacrifices (gives), including monetary and non-monetary sacrifices, such as the accessibility to and the time spent in the restaurant.

---

Considering consumers' price judgement, Grewal *et al.* (1998) found consumers compare the actual price with similar past experiences and develop an internal reference price. This is influenced by advertised prices and reflects a reference point in the consumer's memory. Adapting this approach, Ashton *et al.* (2010) found consumers compared different restaurant meal attributes with their internal reference price and made value evaluations accordingly. Further, restaurant consumers perceived non-monetary sacrifices (PNMS) to include "a trade-off between the time and energy waiting for a meal and service" (Ashton *et al.*, 2010, p. 213; Tam, 2004).

Scitovszky (1945) found consumers did not solely see the price as a sacrifice but also as a quality cue. In this vein, Athola (1984) found that price reflects what the consumer must give to obtain a product and provides a basis for price/PV research. The definition of differentiating between "give" and "get" components has been adapted by many researchers (e.g. Parasuraman *et al.*, 1994; Sweeney *et al.*, 1999; Zeithaml, 1988). Early research found that previous experiences and brand knowledge diminished the negative effect of price (Rao and Monroe, 1989). Similarly, Arora and Singer (2006) found the high degree of negative influence from price on PV could be balanced with positive influence factors. In contrast, Monroe (1990) suggested improving other cues would not have the same effect on the perceived benefit compared to the effect of a price decrease on perceived sacrifice. Thus, consumers appear to compare price with past experiences of similar products and services; then, they develop an internal reference price that can be influenced by advertised prices.

While the impact of the price on perceived quality and PV appears lower when the customers have brand familiarity, there is no consensus on the effect of familiarity level and the interaction with a quality inference based on price. Studies have demonstrated the negative relationship between price and PV when consumers receive limited information on the brand (Dodds *et al.*, 1991). Simon (2015) found customers judge quality when "the absolute price of the product is not very high, when they have little transparency on prices for alternatives, or when they are under time pressure" (p. 29). Tellis and Gaeth (1990) examined the impact of incomplete information on price quality judgements and consumers' choice; they found two components of information impacted consumer choices: objective information and personal experience. Past experiences may lead consumers to infer quality based on price or consumers may infer that the higher price is the result of a willingness to pay by the market for the degree of quality (Kwun and Oh, 2004; Tellis and Gaeth, 1990). While some sort of trade-off between what the restaurant customer "gives" compared to "gets" exists, a clear understanding of the relationships among sacrifices and perceived quality and value is lacking.

#### *Customer satisfaction and post-purchase behaviour*

Kotler and Keller (2012) defined customer satisfaction as the reflection of "a person's judgement of a product's perceived performance in relationship to expectations" (p. 32). An outcome that is below expectations was proposed to result in a negative disconfirmation, whereas, a performance outcome assessed above the reference point resulted in a positive disconfirmation (Oliver, 1980). While many have adopted this paradigm, a direct relationship between outcomes and satisfaction has been elusive.

Tam (2004) found that PV had a higher impact on post-purchase intentions than customer satisfaction. The study revealed including perceived sacrifice, value, service quality and customer satisfaction provided a framework for better prediction of post-purchase behaviour. For example, consumers may perceive high service quality but the effect on PV could be diminished by a high perceived sacrifice (Tam, 2004). Thus, customers may be satisfied with a service but still perceive low value due to high perceived sacrifice.

While it has been proposed that post-purchase intentions can partly be explained by the PV of a service (Bolton and Drew, 1991), a positively perceived price-performance ratio is suggested to influence future intentions directly (McDougall and Levesque, 2000). Hence, weaknesses in earlier research is the neglected direct influence of PV on future intentions and the assumption that perceived value primarily contributed to customer satisfaction and indirectly to future intentions.

Generally, post-purchase behaviour is separated into two main areas: intention to return and positive word-of-mouth. Intention to return can be defined as a customer's desire to repeatedly visit and purchase in an establishment (Kim *et al.*, 2009). For the restaurant industry, the management of word-of-mouth is crucial as it can quickly spread when a negative experience occurs (Harrington *et al.*, 2019; Söderlund, 1998). Several studies have found a positive relationship between satisfaction and the likelihood of positive word-of-mouth; when customer expectations are exceeded, customers appeared more likely to return to the restaurant and tell others about the experience (e.g. Ha and Jang, 2012; Jalilvand *et al.*, 2017). Due to online opinion platforms, the range of potential customers that can be impacted by word-of-mouth has increased dramatically. Online reviews have a double meaning for consumers; they provide information about quality and function as recommendations to other users (Park *et al.*, 2007). Zhang *et al.* (2010) found online reviews are crucial as customers can obtain pre-purchase information on the intangible hospitality service. A study in the hotel industry revealed that positive online customer reviews enhanced the awareness and attitude of customers towards an establishment (Vermeulen and Seegers, 2009).

Customer satisfaction has been found to be an essential premise of customer loyalty (CL) and a key driver of financial performance (Heskett *et al.*, 1997). For two decades, research has shown that perceived quality increases PV, which in turn increases customer satisfaction – ensuring a competitive advantage and long-term success (e.g. Ali *et al.*, 2016).

Etemad-Sajadi and Rizzuto (2013) found customers must be highly satisfied to become loyal and profitable for a company with customer satisfaction seen as an antecedent to loyalty. While some authors suggested perceived service quality as an antecedent to satisfaction (Cronin and Taylor, 1992; Parasuraman *et al.*, 1985), others suggested service quality as a consequence (Bolton and Drew, 1991). The assumption of perceived service quality as an antecedent impacting the price-performance ratio and leading to either satisfaction or dissatisfaction was adopted here.

### Hypotheses

Prior studies have revealed that restaurant attributes affect behavioural intentions (Ryu and Han, 2010). Ambience, food quality and service quality are the most common restaurant attributes (DiPietro *et al.*, 2011; Ryu and Han, 2010). Nevertheless, there is no consensus on the causal relationship of restaurant attributes or the constructs of service quality, PV and customer satisfaction on CL. But, there appears to be agreement on a differentiation between give and get components related to PV. This study's definition of PV is a "cognitive trade-off between perceived quality and sacrifice" (Dodds *et al.*, 1991, p. 316). The literature indicated customers' perceive price as a monetary sacrifice and the time spent as a non-monetary sacrifice; product and service quality are perceived as benefits (e.g. Parasuraman *et al.*, 1994; Sweeney *et al.*, 1999). Additionally, a positive price/perceived quality relationship was assumed; Sweeney *et al.* (1999) found price was often used as a cue to infer quality when only limited information was available. Studies also revealed a negative relationship among perceived sacrifices and perceived service quality, making price perception a multi-faceted influencing variable. However, Tam (2004) suggested price was not a factor that influenced the perception of service

quality in post-purchase judgement. To better understand these relationships in the restaurant context, the following hypotheses emerged from the literature and are shown in Figure 1:

H1. PMS has a significant negative influence on PSQ.

H2. PNMS has a significant negative influence on PSQ.

In line with earlier findings (e.g. Agarwal and Teas, 2002; Butz and Goodstein, 1996) who found perceived quality to have a significant influence on PV, we hypothesised:

H3. Perceived service quality has a significant influence on PV.

The literature review indicated a consensus for the positive impact of price on perceived sacrifice, leading to a direct negative influence on PV (e.g. Simon, 2015; Sweeney *et al.*, 1999). Accordingly, it was hypothesised:

H4. PMS has a significant negative influence on PV.

Most studies have only examined if a customer is willing to buy a product or switch to an alternative, neglecting the decision to choose a certain brand or location. Especially for restaurants, the accessibility of the restaurant may already be a non-monetary sacrifice for the customer. Following Ashton *et al.* (2010), it was hypothesised:

H5. PNMS has a significant negative influence on PV.

The evaluation of service quality primarily consists of experience properties (Dasu and Chase, 2013). Hence, a challenge of the restaurant industry is the consistency of the service; those providing consistency in their service seem to be more successful. This follows the notion that “customer satisfaction depends on a product’s perceived performance in delivering value relative to a buyers’ expectations” (Bowen, 2008, p. 303). Following this approach, customer satisfaction should be derived from the gap between the delivered value and expectations, leading to the hypothesis:

H6. PV has a significant influence on customer satisfaction.

H7. PV has a significant influence on customer loyalty.

H8. Customer satisfaction has a significant influence on customer loyalty.

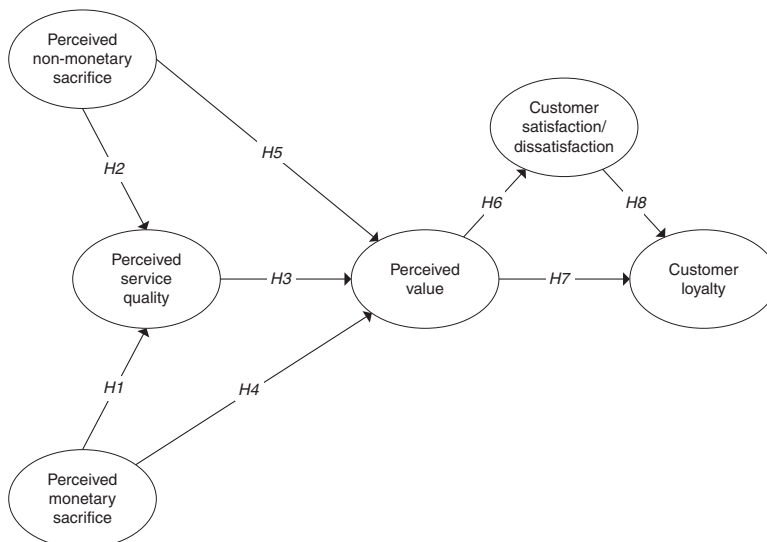


Figure 1. Model of hypotheses

As the review has shown, there is a general assumption that PV has an impact on pre-purchase decisions (Zeithaml, 1988) and post-purchase intentions, such as the intention to patronise (Arora and Singer, 2006; Lee *et al.*, 2005; Tam, 2004), word-of-mouth recommendations (Lee *et al.*, 2005; Tam, 2004) and CL (Tam, 2004; Chang, 2013; Lee *et al.*, 2005; McDougall and Levesque, 2000). These behavioural consequences have been selected as the behavioural expression of CL, as they are likely to affect the providers' profitability (Söderlund, 1998), leading to the following hypothesis:

*H7. PV has a direct influence on CL.*

Several studies have indicated that when customer expectations are exceeded, the customer is more likely to return and tell other people, creating word-of-mouth advertising and loyalty (Lee *et al.*, 2005; Ha and Jang, 2012; Oh, 2000, Bowen, 2008). Hence, it is hypothesized that:

*H8. Customer satisfaction has a significant influence on CL.*

To test these hypotheses, the research model shown in Figure 1 was developed. The value of this model is the simultaneous testing of these relationships to better understand the antecedents and consequences in a restaurant context with implications for practitioner resource allocations.

### Methodology

Based on the findings of the literature review and the hypotheses, respectively, a survey was developed. The survey items were adopted from previous studies (Tam, 2004) with minor adjustments to fit the restaurant context. Three questions were posed to measure PNMS and three questions for PMS (PMS). Five questions were asked to measure perceived service quality (PSQ), one to measure the PV, two questions to measure customer satisfaction (CS), and three questions related to CL. A seven-point Likert scale, as suggested by, was used. The survey was conducted in one major city in South Germany and one major city in North Germany. The sample was taken randomly at locations in these two cities; participants were asked to respond "based on your last visit in a restaurant [...]" and the questionnaire was completed via pen and paper (see the Appendix). In sum, 103 people participated in the survey ( $n = 103$ ). The respondents were slightly more women (57 per cent) than men (43 per cent) and ranged relatively equally by age group: 18–25 (10 per cent), 26–35 (19 per cent), 36–45 (15 per cent), 46–55 (19 per cent), 56–65 (19 per cent) and 65+ (17 per cent).

While larger sample sizes tend to produce more reliable results (Bentler and Yuan, 1999), a sufficient sample size is dependent on the number of latent variables (LVs) and the number of indicators per LV in PLS. Because PLS has no assumptions of data distribution, it is recommended when the study sample size is small (Wong, 2013). Several rules-of-thumb provide support for the adequacy of the sample size in this study. First, the number of indicators used to measure a single construct should be at least ten times the largest number (Hair *et al.*, 2013). In this study, five indicators was the largest number of indicators per construct (on PSQ) with a 20+ times relationship. Second, the sample should be ten times the largest number of structural paths directed at any particular construct in the model. In the current study, the largest number of paths to any one construct was three (PV); thus, this rule was not violated (Hair *et al.*, 2013). Additionally, given typical significance levels, power and  $R^2$  values in business research, the suggested minimum sample size for a maximum number of three arrows pointing to a model LV is 59 respondents (Wong, 2013).

Statistical first-generation techniques, such as linear regressions, correlations and variances analyses are only able to analyse a complex model in fragments (Lowry and Gaskin, 2014). Therefore, the partial least squares (PLS) regression (a variance-based regression analysis of SEM) was selected to analyse the relationships within the research model. For the analysis, SmartPLS 3 (Ringle *et al.*, 2015) was used. First, the relationship

between the indicators and the LVs were determined and a reflective model was developed. Next, a PLS algorithm was calculated providing criteria (squared outer loadings, composite reliability, average variance extracted (AVE), variance inflation factor (VIF), Fornell–Larcker criterion, among others) to analyse as indicators of the model goodness-of-fit (GoF). In addition, *t*-statistics and probability values were calculated to assess statistical significance (tested at 95 % confidence).

#### *Goodness-of-fit*

The first run of the PLS was used to determine whether the outer loadings of the indicators were above the threshold of  $\beta = 0.7$  (Wong, 2013; Lowry and Gaskin, 2014). To enhance accuracy, indicators below this threshold were removed from this reflective model (Lowry and Gaskin, 2014; Götz *et al.*, 2010).

Next, the model's fit and internal reliability were tested. Several tests on the reliability and validity of the model were conducted before the analysis of causal relationships, indirect effects or significance could be performed. In PLS–SEM, the traditional reliability indicator (Cronbach's  $\alpha$ ) is not a reliable indicator of model GoF (Bagozzi and Yi, 1988). Due to this, composite reliability was assessed by measuring the GoF of the model (Bagozzi and Yi, 1988; Hair *et al.*, 2011) using a threshold of  $\rho = 0.6$  (Wong, 2013). The composite reliability for all variables exceeded the threshold of  $\rho = 0.6$ , indicating good internal consistency. With the exception of PSQ indicators, the square loadings of each indicator on the LVs were shown to be higher than  $\beta^2 = 0.7$ , indicating reliability. However, due to the exploratory nature of this study, even PSQ indicators exceeded the exploratory threshold (above  $\beta^2 = 0.4$ ) (Wong, 2013; Lowry and Gaskin, 2014).

The convergent validity of the model indicators was tested by analysing the AVE; all variables exceeded the 0.5 threshold (Wong, 2013; Götz *et al.*, 2010). Consequently, convergent validity of the model was confirmed. To analyse whether correlations for the indicators on different LVs existed, discriminant validity was tested. The Fornell–Larcker criterion in the present model was not violated; the square roots of the LV AVEs were higher than the correlations among the others (Hair *et al.*, 2011, p. 145). However, Henseler *et al.* (2015) criticised the Fornell–Larcker criterion suggesting the heterotrait–monotrait–ratio test (HTMT). As a second test, the HTMT (0.862) was slightly above the preferred value of less than 0.85 but deemed acceptable for this exploratory study (Henseler *et al.*, 2015).

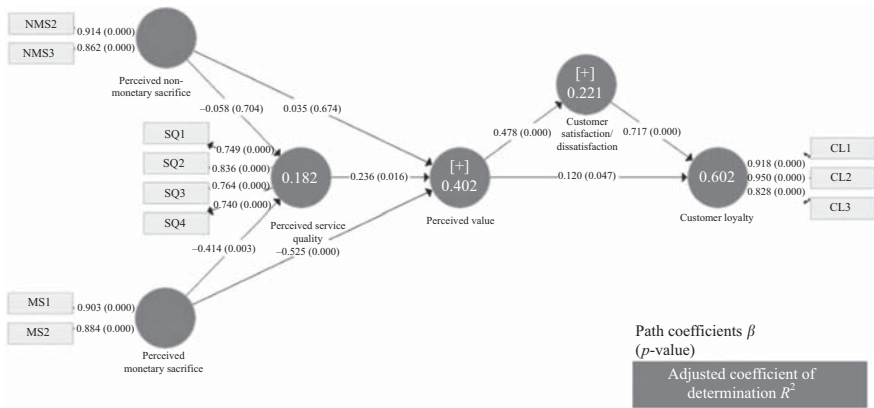
To analyse the GoF, the VIF of the inner and outer model were analysed. A VIF below 5 represents a good overall fit of the model and shows that there are no multi-collinearity problems (Hair *et al.*, 2011). The analysis of the inner VIF and outer VIF indicated none of the values exceeded this suggested threshold.

#### *Path analysis and results*

The model in Figure 2 provides the results of the fifth and final run of the PLS algorithm. The indicators with outer loadings below the suggested threshold ( $\beta < 0.7$ ) were removed from the model. A summary of indicators and significant loadings included in assessing LVs for the final model are shown in Table I. For PNMS, two indicators (perceived wait and wait expectations) were retained with time sacrificed excluded. Two indicators for PMS (cheap expensive price and expected price) were also retained and a third (price fairness) excluded. Atmosphere quality expectations were removed as an indicator for PSQ with four indicators retained (low–high quality, comparable quality, product quality expectations and service quality expectations). PV and CS used one overall item for each and CL retained three indicators (revisit intentions, tell others and recommend to others).

All outer loadings were larger than  $\beta = 0.7$ . The adjusted  $R^2$  in the LV of PSQ shows that the perceived sacrifices, monetary and non-monetary, accounted for 18.2 per cent of the





**Figure 2.** Path results for sacrifice-quality-value-satisfaction-loyalty model

LV	Indicators	Loadings
Perceived non-monetary sacrifice	Time sacrificed	NS
	Perceived wait	0.914
	Wait expectations	0.862
Perceived monetary sacrifice	Cheap expensive price	0.903
	Expected price	0.884
	Price fairness	NS
Perceived service quality	Low/high quality	0.749
	Comparable quality	0.836
	Product quality expectation	0.764
	Service quality expectations	0.740
	Atmosphere quality expectations	NS
Perceived value	Overall restaurant value	1 item
Customer service	Overall satisfaction	1 item
Customer loyalty	Future visit intentions	0.918
	Tell others	0.950
	Recommend to others	0.828

**Table I.** Results summary of study reflective outer models

variance in PSQ, indicating a weak effect. The adjusted  $R^2$  of PV ( $R^2 = 0.402$ ) indicated the model explained 40.2 per cent of the variance. The overall model showed a moderate effect for CL explaining 60.2 per cent of the variance in this endogenous variable. The adjusted  $R^2$  for customer satisfaction was found to be relatively weak with 22.1 per cent of the variance explained by the model.

When analysing the factor loadings, it can be said that the non-monetary sacrifice did not affect PSQ ( $\beta = -0.058$ ) and did not directly affect PV ( $\beta = 0.035$ ). In contrast, the factor loadings of PMS indicated a moderate negative effect on perceived quality ( $\beta = -0.414$ ) and a direct, positive impact on PV ( $\beta = -0.525$ ). Further analysis of the factor loadings indicated perceived service quality had a weak positive effect on PV ( $\beta = 0.236$ ). The direct effect of PV on customer satisfaction was moderate ( $\beta = 0.478$ ); whereas, the direct effect on CL was weak ( $\beta = 0.120$ ). A substantial effect was found between customer satisfaction and CL ( $\beta = 0.717$ ). Apart from direct effects, the indirect effects were analysed and inferred from Table II. The indirect effect of PNMS on PV was negligible ( $\beta = -0.014$ ). The indirect effect of PMS on PV via perceived service quality was also shown to be weak ( $\beta = -0.098$ ), although it appeared to enhance the effect of PMS on PV.

Latent variables	Indirect effect ( $\beta$ )	Total effect ( $\beta$ )
Perceived non-monetary sacrifice → Perceived service quality		-0.058
Perceived non-monetary sacrifice → Perceived value	-0.014	0.022
Perceived non-monetary sacrifice → Customer satisfaction/Dissatisfaction	0.010	0.010
Perceived non-monetary sacrifice → Customer loyalty	0.010	0.010
Perceived monetary sacrifice → Perceived service quality		-0.414
Perceived monetary sacrifice → Perceived value	-0.098	-0.623
Perceived monetary sacrifice → Customer satisfaction/Dissatisfaction	-0.298	-0.298
Perceived monetary sacrifice → Customer loyalty	-0.288	-0.288
Perceived service quality → Perceived value		0.236
Perceived service quality → Customer satisfaction/Dissatisfaction	0.113	0.113
Perceived service quality → Customer loyalty	0.109	0.109
Perceived value → Customer satisfaction/dissatisfaction		0.478
Perceived value → Customer loyalty	0.343	0.462
Customer satisfaction/Dissatisfaction → Customer loyalty		0.717

**Table II.**  
Results of indirect and total effects of model latent variables

The negative, indirect effect of PMS on customer satisfaction ( $\beta = -0.298$ ) and on CL ( $\beta = -0.288$ ) were even higher, indicating PMS was a major contributor to PV, customer satisfaction and CL. In contrast, perceived service quality only had a weak effect on customer satisfaction ( $\beta = 0.113$ ) and CL ( $\beta = 0.109$ ). PV had the strongest indirect effect on CL ( $\beta = 0.343$ ), indicating that perceived value was a major contributor to CL but indirectly, as the direct factor loading ( $\beta = 0.120$ ) was lower. The analysis of the total effects indicated that PNMS had negligible effects. As the factor loadings indicated, the PMS had a negative total effect of  $\beta = -0.414$  on PSQ. Further, it had a negative total effect on PV ( $\beta = -0.623$ ); the major impact directly ( $\beta = -0.525$ ) affected PV compared to indirectly through PSQ ( $\beta = -0.098$ ). The indirect negative effects of PMS on customer satisfaction ( $\beta = -0.298$ ) and CL ( $\beta = -0.288$ ) should be emphasised. Additionally, PV had a moderate total effect on CL ( $\beta = 0.462$ ), whereas, the major effect indirectly affected CL via customer satisfaction ( $\beta = 0.343$ ).

To test the hypotheses, a two-tailed t-test ( $\alpha = 0.05$ ) was conducted using the bootstrapping function of SmartPLS 3 (Ringle *et al.*, 2015). The effects ( $\beta$ ) and their respective probability values ( $p$ -value) for this PLS regression are presented graphically in Figure 2. The probability values ( $p$ ) show that all indicators of the outer model are significant ( $p < 0.05$ ). Differential results were found for the significance among the LVs in the inner model. Taking a closer look at PMS, a significant negative influence on PSQ was found ( $\beta = -0.414$ ,  $p = 0.003$ ). Consequently, the first hypothesis was strongly supported. The direct effects of PNMS on PSQ were non-significant ( $\beta = -0.058$ ,  $p = 0.704$ ). Therefore, the second hypothesis received no support.

PSQ was shown to significantly influence PV ( $\beta = 0.236$ ,  $p = 0.016$ ). Consequently, the third hypothesis was supported. The fourth hypothesis was supported indicating that PMS had a direct significant influence on PV. The analysis indicated a negative effect for PMS on PV ( $\beta = -0.525$ ,  $p = 0.000$ ). The fifth hypothesis was not supported, it posited that PNMS has a significant influence on PV; however, this relationship was not significant ( $\beta = 0.035$ ,  $p = 0.674$ ).

It was further hypothesised that customer satisfaction level could be inferred based on the gap between customer expectations and the delivered value to the customer ( $H6$ ). This gap relationship was assessed looking at a combination of whether or not expectations were met and level of value received. Results supported  $H6$  and demonstrated a significant, positive influence of perceived value on customer satisfaction ( $\beta = 0.478$ ,  $p = 0.000$ ).  $H7$  was also supported showing a direct, significant relationship between PV and CL ( $\beta = 0.120$ ,  $p = 0.047$ ).  $H8$  was supported indicating a direct, significant influence of customer satisfaction on CL ( $\beta = 0.717$ ,  $p = 0.000$ ).

## Discussion

Taking a closer look at the results, it was shown that the overall model explained 22.1 per cent of the variance in customer satisfaction but explained 60.2 per cent of the variance in CL. Customer satisfaction had the strongest effect on CL and considering the indirect effects of PV on CL, it can be argued that the major influence of PV on CL is mediated through customer satisfaction. Consequently, the importance to integrate both (PV and customer satisfaction) in the research model follows earlier research and theory (Tam, 2004). In contrast, the current study indicated that customer satisfaction contributed more strongly to CL than PV, even when accounting for indirect effects. In line with earlier research (Cronin and Taylor, 1992; Etemad-Sajadi and Rizzuto, 2013), it was shown that customer satisfaction is an antecedent of CL. The results also support the proposition that post-purchase intentions could partly be explained by PV (Bolton and Drew, 1991). The findings conflicted with earlier study and revealed a direct relationship between PV and CL, disproving the assertion of McDougall and Levesque (2000) who neglected to test the direct effect of PV on CL. However, the strength of this relationship in the restaurant context was fairly weak and primarily indirect with customer satisfaction serving as an important mediator.

In contrast to Arora and Singer (2006) and Rao and Monroe (1989), the total negative effects of the monetary sacrifice on PV were much stronger than the positive effects of PSQ on PV. This indicates that increasing other positive factors cannot fully diminish the negative effects of price (Monroe, 1990). However, the negative influence of PMS on PSQ, which indirectly affected PV, should be highlighted.

The assumptions of a general positive influence of PSQ and a negative influence of PMS on PV were supported by the data. Consequently, Monroe and Krishnan's (1985) proposal that price has various effects was supported. One of the major variables in the model was PMS shown to negatively influence PSQ, PV and indirectly impact customer satisfaction and CL. In line with Dodds *et al.* (1991), a moderate and negative price-perceived service quality relationship was observed. This is in contrast to other studies (Tam, 2004) that suggested monetary sacrifice did not influence the perception of service quality in post-purchase judgement. The relationships of perceived service quality, monetary sacrifice, and PV in this study strongly contributed to post-purchase intentions.

The study by Ashton *et al.* (2010) indicated customers perceive a non-monetary sacrifice by accessing the service and waiting time for a meal. The present study indicated the non-monetary sacrifices were negligible on perceptions of quality and value. Earlier findings that customer satisfaction directly influences CL were supported (Babin *et al.*, 1994). Further, monetary sacrifice contributed indirectly to satisfaction and loyalty and did not diminish when PSQ was enhanced.

### *Theoretical implications*

The findings of the two sub-models using PLS-SEM provide some interesting implications for both measurement and the structure of these LVs. First, the outer model (the relationship between each LV and their indicators) provides some insight into how these are perceived in a restaurant visit context. Time sacrificed was not a significant predictor; instead, PNMS was assessed based on perceived wait times and whether or not the perceived wait was in line with other restaurant experiences. Duration or perceived duration has been described as an important factor that impacts perceptions of the service experience. Further, the attribution of positive or negative elements during the service process has also been described as a key factor (Dasu and Chase, 2013). In the case of time sacrificed, restaurant customers may not attribute the negative impacts of things such as parking availability, driving distance and other non-monetary sacrifices to the restaurant, leading to a non-significant impact as an indicator.

Of course, it should be noted that the relative statistical importance of a variable is not the same as its strategic or operational importance. Thus, the operational service design decisions related to time sacrifice and attribution of these elements are likely to be important considerations to enhance perceived quality and value. Similarly, while price fairness was a non-significant indicator of monetary sacrifice, the notion of fairness as a construct may be much more idiosyncratic and likely to create more noise in the data than more straightforward indicators such comparisons to expectations or how cheap or expensive – where customers can use a clear point of reference.

The inner model indicates some interesting relationships among the LVs used in the study. A revised model appears possible based on a review of earlier research, consumer perceptions and theoretical relationships. Money sacrifice appears to have direct negative relationships with perceptions of quality and value. This path suggests that quality and value have direct effects on customer satisfaction. PV appears to positively impact CL with satisfaction as a partial mediator. Therefore, these relationships are important considerations and the creation of a taxonomy related to value-based pricing would provide a valuable framework for researchers to better assess these constructs and predict behaviour. For example, this could include the impact of monetary sacrifices and how non-monetary sacrifices can be designed to minimise impacts on perceptions of quality and value. Improved attribute categorisation (basic, performance, excitement) (e.g. Mathe-Soulek *et al.*, 2015) and unique value concepts (experiential, time saving, memorability, etc.) would be beneficial in future research and provide greater clarity for practitioners. The framework and related research should also include more evolved measures and concepts related to satisfaction and loyalty. For instance, what other benefits are useful to assess the impact of a restaurant experience? Do they create more customer engagement and trust? Does this result in higher return business and positive word-of-mouth? And, do restaurant experiences impact perceptions of well-being or quality-of-life?

### *Practical implications*

Starting with the end in mind first, CL is a key outcome that provides success for firms. In this study, loyalty included not only return visits but also recommendations and positive word-of-mouth. This conceptualization and an extension of it has important implications for firms; first, loyalty suggests greater trust and connection to a brand or firm and studies have shown this facilitates higher spending per customer, higher profit margins and lower marketing costs (Ottenbacher and Harrington, 2010). In today's environment, this loyalty concept is likely to facilitate social media evangelists resulting in multiple avenues of electronic word-of-mouth.

From a sacrifice perspective, this study demonstrated the important relationship between monetary sacrifice and perceptions of quality and value. Non-monetary sacrifice was less evident. For practitioners, this finding indicates that service design can be implemented to reduce or eliminate non-monetary sacrifice by finding creative ways to reduce negative perceptions of wait time (e.g. temporary seating in the bar before a table is ready, the use of pagers to notify diners, entertainment options to distract from the actual duration, etc.) or the attribution of other weaknesses to external sources (e.g. lack of parking, easy access to establishment, alcohol consumption restrictions, etc.). The impact of monetary sacrifice demonstrates a three-part relationship among price–quality–value perceptions. To minimise negative effects of price on perceived quality, practitioners should communicate price fluctuations as discounts rather than surcharges to allow for maximising revenues and enhancing acceptance (Kimes *et al.*, 1998). Second, operators should assess restaurant attributes for impact on perceptions of value and satisfaction. Based on the firms' primary markets, is an attribute a dis-satisfier (higher resource investments will do little for increasing satisfaction but if lowered below expectations resulting in dissatisfaction), satisfier (a direct relationship between higher resource

investments and higher PV/satisfaction) or exciter (“wows” that increase the likelihood of loyalty and associated behaviours) (Mathe-Soulek *et al.*, 2015)?

In terms of value, operators should articulate their unique value proposition and ensure this lines up with target market values. This definition may be quite different than traditional value descriptions such as quality food or reliable service. For the consumer, the value may be defined by aspects such as “time saving”, “personalized”, “on-going social relationship”, “exclusivity”, etc. The traditional value notions of quality food, beverage and service may be “must be” elements in today’s competitive landscape.

The concept of value may also be viewed from a “customer journey” perspective. This perspective reflects the stages of the total customer experience and flows from pre-purchase (all interactions with the brand and environment prior to purchase), purchase (all interactions and processes during the purchase event itself), to post-purchase (interactions after purchase – creating triggers that lead to loyalty). This indicates restaurateurs should consider a variety of touchpoints along this journey that impact perceptions of value; these may be brand-owned, partner-owned, customer-owned, or social/external touchpoints (Lemon and Verhoef, 2016). Brand-owned include aspects such as communications, social media, promotions not owned by the individual restaurant. Partner-owned are those touchpoints that are jointly controlled/managed such as regional promotions (CVBs), promotions with supplier partners (seasonal products, local wines, etc.), delivery systems (Grubhub), or other franchise owners. Customer-owned touchpoints include payment options or a desire to have co-created experiences to meet needs/values. Finally, social/external touchpoints include Yelp, peer influences, rating systems and health inspections that influence the journey before, during and after the purchase event. This framework of customer journey touchpoints provides a basis for thinking through this process and how the restaurant can influence them to enhance PV across the customer journey. This concept tied with an understanding of restaurant attribute categories (dis-satisfiers, satisfiers and excitors) would allow operators to more fully understand what constitutes the “right bundle” to enhance satisfaction, loyalty and competitive advantage.

Finally, an important aspect of this study is the direct effect of PV on loyalty and the intervening effect of satisfaction between value and loyalty. This indicates decisions on restaurant loyalty behaviours are transmitted, in part, directly from perceptions of value and indirectly via satisfaction. This relationship indicates operators with an understanding of what value is created for their customers and delivery of quality products and services during the purchase event work in conjunction to drive loyalty.

### **Limitations and future research suggestions**

While the current study provided a more holistic representation of the price–quality–value–satisfaction–loyalty relationship, a 60.2 per cent explanation of the variance in CL indicates other influence factors may not be addressed in this model. An extension of the model to include brand attitudes, either as an antecedent of PV (e.g. Rao and Monroe, 1989; Ashton *et al.*, 2010) or as an outcome of customer satisfaction (e.g. Oh, 2000; Tam, 2004) may provide additional explanatory power and should be included in future research. Additionally, measuring more dimensions of PV, particularly hedonic value, could provide interesting results. Another possibility is to measure PV using the PERVAL scale enhance predictive accuracy. Further, a comparison between SERVQUAL to PERVAL relationships in a restaurant context may also deliver interesting results.

The survey that was applied as a preliminary study consisted of 103 participants. This sample size should be expanded along with a full confirmatory factor analysis (Thompson, 2004) in the future to reveal redundant variables, enhance the predictive accuracy of the model, and increase generalisability.

## Conclusion

The literature revealed that PV is a subjective evaluation and a cognitive trade-off of what is given and what is received. Prior experiences, price references and expectations also appear to influence the assessment of each transaction. The review indicated researchers have some consensus that PV consists of several dimensions, dimensions range from utility to intrinsic consumption experiences depending on context, and value-based pricing is a viable but challenging method to use in the service/restaurant context. This study demonstrated that a more holistic model of price-quality-value-satisfaction-loyalty is needed to utilise value-based pricing. In the model, six of the eight hypotheses were supported. In sum, PV had a stronger influence on CL in an indirect way (via customer satisfaction). The direct impact of customer satisfaction on CL was also shown to be strong. Consequently, it can be said that customer satisfaction and PV are primary predictors of CL.

PMS was the major influence factor of PV in contrast to the hypothesised PSQ relationship with PV. Further, PMS appeared to be a strong driver of PSQ. Moreover, the negative effect of PMS on PV indicated this impact may be a challenge mitigate in a restaurant context. This is important for managers as the effort and resources needed to deliver more value could be higher than the resulting yield of a price increase. Customer-centric pricing requires restaurant managers know their customers' needs and desires to set prices. Compared to cost-based pricing, additional revenue and yield can be generated from higher prices or lowered process costs. Moreover, applying value-based pricing may indirectly lower the costs of maintaining the customer relationship due to the influence of PV on customer satisfaction and CL. The downside of value-pricing could be a decrease in CL if customers do not perceive value based on the value proposition put forth by the firm, leading to dissatisfaction. Therefore, restaurant managers must keep in mind balancing the impact of price, value propositions, and word-of-mouth behaviours as these appear crucial to the restaurant's long-term success. The identification of customer needs and monitoring the customers' PV are keys to successfully applying value-based pricing in the restaurant industry.

## References

- Agarwal, S. and Teas, R. (2002), "Cross-national applicability of a perceived quality model", *Journal of Product & Brand Management*, Vol. 11 No. 4, pp. 213-236.
- Alhelalat, J.A., Habiballah, M.A. and Twaissi, N.M. (2017), "The impact of personal and functional aspects of restaurant employee service behaviour on customer satisfaction", *International Journal of Hospitality Management*, Vol. 66, September, pp. 46-53.
- Ali, F., Amin, M. and Cobanoglu, C. (2016), "An integrated model of service experience, emotions, satisfaction, and price acceptance: an empirical analysis in the Chinese hospitality industry", *Journal of Hospitality Marketing & Management*, Vol. 25, No. 4, pp. 449-475.
- Armstrong, G., Kotler, P. and Opresnik, M. (2016), *Marketing: An Introduction*, 13th Global ed., Pearson Education Limited, Boston, MA.
- Arora, R. and Singer, J. (2006), "Customer satisfaction and value as drivers of business success for fine dining restaurants", *Services Marketing Quarterly*, Vol. 28 No. 1, pp. 89-102.
- Ashton, A., Scott, N., Solnet, D. and Breakey, N. (2010), "Hotel restaurant dining: the relationship between perceived value and intention to purchase", *International Journal of Tourism and Hospitality Research*, Vol. 10 No. 3, pp. 206-218.
- Athola, O. (1984), "Price as a 'give' component in an exchange theoretic multicomponent model", *Advances in Consumer Research*, Vol. 11, pp. 623-626.
- Babin, B., Griffin, M. and Babin, L. (1994), "The effect of motivation to process on consumers' satisfaction reaction", *NA – Advances in Consumer Research*, Vol. 21, pp. 406-411.

- Bagozzi, R. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.
- Bentler, P.M. and Yuan, K.H. (1999), "Structural equation modeling with small samples: test statistics", *Multivariate Behavioral Research*, Vol. 34 No. 2, pp. 181-197.
- Bolton, R. and Drew, J. (1991), "Linking customer satisfaction to service operations and outcomes", in Rust, R.T. and Oliver, R.L. (Eds), *Service Quality: New Directions in Theory and Practice*, Sage Publications, Inc., Newbury Park, CA, pp. 173-200.
- Bowen, J. (2008), "Marketing and consumer behavior in hospitality", in Brotherton, B. and Wood, R. (Eds), *The SAGE Handbook of Hospitality Management*, 1st ed., SAGE Publications Ltd, London, pp. 302-330.
- Butz, H.J. and Goodstein, L. (1996), "Measuring customer value: gaining the strategic advantage", *Organizational Dynamics*, Vol. 24 No. 3, pp. 63-77.
- Chandler, J.D. and Lusch, R.F. (2015), "Service systems: a broadened framework and research agenda on value propositions, engagement, and service experience", *Journal of Service Research*, Vol. 18 No. 1, pp. 6-22.
- Chang, K.-C. (2013), "How reputation creates loyalty in the restaurant sector", *International Journal of Contemporary Hospitality Management*, Vol. 25 No. 4, pp. 536-557.
- Cronin, J.J. and Taylor, S. (1992), "Measuring service quality: a reexamination and extension", *Journal of Marketing*, Vol. 56 No. 3, pp. 55-68.
- Dasu, S. and Chase, R. (2013), *The Customer Service Solution: Managing Emotions, Trust, and Control to win your Customer's Business*, McGraw Hill Education, New York, NY.
- DiPietro, R., Parsa, H. and Gregory, A. (2011), "Restaurant QSC inspections and financial performance: an empirical investigation", *International Journal of Contemporary Hospitality Management*, Vol. 23 No. 7, pp. 982-999.
- Dodds, W., Monroe, K. and Grewal, D. (1991), "Effects of price, brand, and store information on buyer's product evaluations", *Journal of Marketing Research*, Vol. 28, pp. 307-319.
- Etemad-Sajadi, R. and Rizzuto, D. (2013), "The antecedents of consumer satisfaction and loyalty in fast food industry: a cross-national comparison between Chinese and Swiss consumers", *International Journal of Quality & Reliability Management*, Vol. 30 No. 7, pp. 780-798.
- Götz, O., Liehr-Gobbers, K. and Krafft, M. (2010), "Evaluation of structural equation models using the partial least squares (PLS) approach", in Esposito Vinzi, V., Chin, W., Henseler, J. and Wang, H. (Eds), *Handbook of Partial Least Squares: Concepts, Methods and Application*, Springer-Verlag, Berlin, pp. 691-712.
- Grewal, D., Krishnan, R. and Baker, J.B.N. (1998), "The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions", *Journal of Retailing*, Vol. 74 No. 3, pp. 331-352.
- Ha, J. and Jang, S. (2012), "Consumer dining value: does it vary across different restaurant segments?", *Journal of Foodservice Business Research*, Vol. 15 No. 2, pp. 123-142.
- Hair, J., Ringle, C. and Sarstedt, M. (2011), "PLS-SEM: indeed a silver bullet", *Journal of Marketing Theory and Practice*, Vol. 19 No. 2, pp. 139-151.
- Hair, J.F., Ringle, C.M. and Sarstedt, M. (2013), "Partial least squares structural equation modeling: rigorous applications, better results and higher acceptance", *Long Range Planning*, Vol. 46 Nos 1-2, pp. 1-12.
- Harrington, R.J., Fauser, S. and Ottenbacher, M.C. (2017), "QSR brand value strategies: assessing perceived relative differences in marketing mix dimensions among brands, loyal customers and non-customers", *International Journal of Contemporary Hospitality Management*, Vol. 29 No. 1, pp. 551-570.
- Harrington, R.J., Hammond, R., Ottenbacher, M.C., Chathoth, P. and Marlowe, B. (2019), "From goods-service logic to a memory-dominant logic: demand-side strategy research and application in hospitality", *International Journal of Hospitality Management*, Vol. 76, pp. 252-260.

- Harrington, R.J., Ottenbacher, M.C., Staggs, A. and Powell, A. (2012), "Generation Y consumers: key restaurant attributes impacting positive and negative experiences", *Journal of Hospitality & Tourism Research*, Vol. 36 No. 4, pp. 431-449.
- Henseler, J., Ringle, C. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.
- Heskett, J., Sasser, W.J. and Schlesinger, L. (1997), *The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction and Value*, 1st ed., The Free Press, New York.
- Hinterhuber, A. and Liozu, S. (2012), "Is it time to rethink your pricing strategy?", *MIT Sloan Management Review*, Vol. 53 No. 4, pp. 69-77.
- Holden, R. and Burton, M. (2008), *Pricing with Confidence: 10 Ways to Stop Leaving Money on the Table*, Wiley, Hoboken, NJ.
- Jain, S.K. and Gupta, G. (2004), "Measuring service quality: SERVQUAL vs SERVPERF scales", *Vikalpa*, Vol. 29 No. 2, pp. 25-38.
- Jalilvand, M.R., Salimipour, S., Elyasi, M. and Mohammadi, M. (2017), "Factors influencing word of mouth behaviour in the restaurant industry", *Marketing Intelligence & Planning*, Vol. 35 No. 1, pp. 81-110.
- Kim, I., Jeon, S. and Hyun, S. (2012), "Chain restaurant patrons' well-being perception and dining intentions: the moderating role of involvement", *International Journal of Contemporary Hospitality Management*, Vol. 24 No. 3, pp. 402-429.
- Kim, W., Ng, C. and Kim, Y. (2009), "Influence of institutional DINESERV on customer satisfaction, return intention, and word-of-mouth", *International Journal of Hospitality Management*, Vol. 28, pp. 10-17.
- Kimes, S.E., Chase, R.B., Choi, S., Lee, P.Y. and Ngonzi, E.N. (1998), "Restaurant revenue management: applying yield management to the restaurant industry", *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 39 No. 3, pp. 32-39.
- Kotler, P. and Keller, K. (2012), *Marketing Management*, 14th ed., Pearson Education Limited, Essex.
- Kwun, J. and Oh, H. (2004), "Effects of brand, price, and risk on customers' value perceptions and behavioral intentions in the restaurant industry", *Journal of Hospitality & Leisure Marketing*, Vol. 11 No. 1, pp. 31-49.
- Lapierre, J., Filiatrault, P. and Chebat, J. (1999), "Value strategy rather than quality strategy: a case of business-to-business professional services", *Journal of Business Research*, Vol. 45 No. 2, pp. 235-246.
- Lee, Y.K., Park, K.H., Park, D.H., Lee, K.A. and Kwon, Y.J. (2005), "The relative impact of service quality on service value, customer satisfaction, and customer loyalty in Korean family restaurant context", *International Journal of Hospitality & Tourism Administration*, Vol. 6 No. 1, pp. 27-51.
- Lemon, K.N. and Verhoef, P.C. (2016), "Understanding customer experience throughout the customer journey", *Journal of Marketing*, Vol. 80 No. 6, pp. 69-96.
- Lovelock, C. (1983), "Classifying services to gain strategic advantage", *Journal of Marketing*, Vol. 47, July, pp. 9-20.
- Lowry, P. and Gaskin, J. (2014), "Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioural causal theory: when to choose it and how to use it", *IEEE Transactions on Professional Communication*, Vol. 57 No. 2, pp. 123-146.
- McDougall, G. and Levesque, T. (2000), "Customer satisfaction with services: putting perceived value into the equation", *Journal of Services Marketing*, Vol. 14 No. 5, pp. 392-410.
- Mathe-Soulek, K., Slevitch, L. and Dallinger, I. (2015), "Applying mixed methods to identify what drives quick service restaurant's customer satisfaction at the unit-level", *International Journal of Hospitality Management*, Vol. 50, pp. 46-54.
- Monroe, K. (1990), *Pricing: Making Profitable Decisions*, 2nd ed., McGraw-Hill Publishing Company, Singapore.



- Monroe, K. and Krishnan, R. (1985), "The effect of price on subjective product evaluations", in Jacoby, J. and Olson, J. (Eds), *Perceived Quality: How Consumers View Stores and Merchandise*, Lexington Books, Toronto; Lexington, MA, pp. 209-232.
- Nelson, P. (1974), "Advertising as information", *Journal of Political Economy*, Vol. 82 No. 4, pp. 729-754.
- Oh, H. (2000), "Diners' perceptions of quality, value and satisfaction", *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 41 No. 3, pp. 58-66.
- Oliver, R. (1980), "A cognitive model of the antecedents and consequences of satisfaction decisions", *Journal of Marketing Research*, Vol. 17 No. 4, pp. 460-469.
- Ottensbacher, M. and Harrington, R.J. (2010), "A study of innovative versus incremental new service developments: different strategies for achieving success", *Journal of Services Marketing*, Vol. 24 No. 1, pp. 3-15.
- Parasuraman, A., Zeithaml, V. and Berry, L. (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, Vol. 49, October, pp. 41-50.
- Parasuraman, A., Zeithaml, V. and Berry, L. (1994), "Reassessment of expectations as a comparison standard in measuring service quality: implications for further research", *Journal of Marketing*, Vol. 58 No. 1, pp. 111-124.
- Park, D., Lee, J. and Han, I. (2007), "The effect of online consumer reviews on consumer purchasing intention: the moderating role of involvement", *International Journal of Electronic Commerce*, Vol. 11 No. 4, pp. 125-148.
- Rao, A. and Monroe, K. (1989), "The effect of price, brand name, and store name on buyer's perceptions of product quality: an integrative review", *Journal of Marketing Research*, Vol. 26, August, pp. 351-357.
- Rao, V. and Kartono, B. (2009), "Pricing objectives and strategies: a cross-country survey", in Rao, V.R. (Ed.), *Handbook of Pricing Research in Marketing*, Edward Elgar Publishing Limited, Cheltenham, pp. 9-36.
- Reichheld, F. and Teal, T. (1996), *The Loyalty Effect: The Hidden Force behind Growth, Profits, and Lasting Value*, Harvard Business School Press, Cambridge, MA.
- Ringle, C., Wende, S. and Becker, J.-M. (2015), *SmartPLS 3*, SmartPLS, Bönningstedt, available at: [www.smartpls.com](http://www.smartpls.com) (accessed 29 September 2017).
- Ryu, K. and Han, H. (2010), "Influence of the quality of food, service, and physical environment on customer satisfaction and behavioural intentions", *Journal of Hospitality & Tourism Research*, Vol. 34 No. 3, pp. 310-329.
- Sánchez-Fernández, R. and Iniesta-Bonillo, M. (2007), "The concept of perceived value: a systematic review of the research", *Marketing Theory*, Vol. 7 No. 4, pp. 427-451.
- Schlissel, M. and Chasin, J. (1991), "Pricing of services: an interdisciplinary review", *The Service Industries Journal*, Vol. 11 No. 3, pp. 271-286.
- Scitovszky, T. (1945), "Some consequences of the habit of judging quality by price", *The Review of Economic Studies*, Vol. 12, pp. 100-105.
- Simon, H. (2015), "Confessions of the pricing man: how price affects everything", English ed. adapted from Original German Language Edition "Preisheiten: Alles, was Sie über Preise wissen müssen" by Hermann Simon (2013) ed., International Publishing, Heidelberg.
- Söderlund, M. (1998), "Customer satisfaction and its consequences on customer behaviour revisited – the impact of different levels of satisfaction on word-of-mouth, feedback to the supplier and loyalty", *International Journal of Service Industry Management*, Vol. 9 No. 2, pp. 169-188.
- Sweeney, J. and Soutar, G. (2001), "Consumer perceived value: the development of a multiple item scale", *Journal of Retailing*, Vol. 77 No. 2, pp. 203-220.
- Sweeney, J., Soutar, G. and Johnson, L. (1999), "The role of perceived risk in the quality-value relationship: a study in a retail environment", *Journal of Retailing*, Vol. 75 No. 1, pp. 77-105.
- Tam, J. (2004), "Customer satisfaction, service quality and perceived value: an integrative model", *Journal of Marketing Management*, Vol. 20 No. 7, pp. 897-917.

- 
- Tellis, G. and Gaeth, J. (1990), "Best value, price-seeking, price-aversion: the impact of information and learning on consumer choices", *Journal of Marketing*, Vol. 54, April, pp. 34-45.
- Thompson, B. (2004), *Exploratory and Confirmatory Factor Analysis: Understanding Concepts and Applications*, 1st ed., American Psychological Association, Washington, DC.
- Tribe, J. and Snaith, T. (1998), "From SERVQUAL to HOLSAT: holiday satisfaction in Varadero, Cuba", *Tourism Management*, Vol. 19 No. 1, pp. 25-34.
- Vermeulen, I. and Seegers, D. (2009), "Tried and tested: the impact of online hotel reviews on consumer considerations", *Tourism Management*, Vol. 30 No. 1, pp. 123-127.
- Wong, K.-K. (2013), "Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS", *Marketing Bulletin*, Vol. 24 No. 1, pp. 1-32.
- Woodruff, R. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 No. 2, pp. 139-153.
- Zeithaml, V. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol. 52, July, pp. 2-22.
- Zhang, Z., Ye, Q., Law, R. and Li, Y. (2010), "The impact of e-word-of-mouth on the online popularity of restaurants: a comparison of consumer reviews and editor reviews", *International Journal of Hospitality Management*, Vol. 29, pp. 694-700.
- Zheng, C. and Forgacs, G. (2017), "The emerging trend of hotel total revenue management", *Journal of Revenue and Pricing Management*, Vol. 16 No. 3, pp. 238-245.

#### Further reading

- Monroe, K. and Chapman, J. (1987), "Framing effects on buyers' subjective product evaluations", in Wallendorf, M. and Anderson, P. (Eds), *NA – Advances in Consumer Research*, Vol. 14, Association for Consumer Research, Provo, UT, pp. 193-197.
- Ryu, K., Han, H. and Jang, S. (2010), "Relationships among hedonic and utilitarian values, satisfaction and behavioural intentions in the fast-casual restaurant industry", *International Journal of Contemporary Hospitality Management*, Vol. 22 No. 3, pp. 416-432.

(The Appendix follows overleaf.)

Based on your last visit in a restaurant...

**F1: Please rate the time you perceived to have sacrificed, to access the resaurant location (e.g. time of driving, walking, parking etc.)**

Very quick        Very long

**F2: Please rate the time you have perceived to wait until you were served.**

Very quick        Very long   
Shorter Than expected        Longer than expected

**F3: Please rate how you have perceived the price you have paid at this restaurant visit.**

Cheap        Expensive   
Lower than expected        Higher than expected   
Reasonable        Not reasonable

**F4: Please rate the product quality that you have perceived at this restaurant visit (meal and drinks)**

Low quality        High quality   
Worse than comparable restaurants        Better than comparable restaurants   
Worse than expected        Better than expected

**F5: My expectations regarding the service were...**

Not met  Mostly not met  Partly not met  Partly met/ not met  Mostly met  Met  Exceeded

**F6: My expectations regarding the ambience and interior were...**

Not met  Mostly not met  Partly not met  Partly met/ not met  Mostly met  Met  Exceeded

**F7: Please rate the value you have perceived from the restaurant visit.**

Bad/Low Value        Good/High Value

**F8: How satisfied have you been with the restaurant visit?**

Terrible	Unhappy	Mostly dissatisfied	Mixed	Mostly satisfied	Pleased	Delighted
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worse than expected				Better than expected		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**F9: Do you agree...?**

**I will visit this restaurant more often in the future**

Entirely disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Entirely agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**I will recommend this restaurant to others**

Entirely disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Entirely agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**I will tell others about this restaurant visit**

Entirely disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Entirely agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**F10: Did you go to a „chain-restaurant“?**

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

**F11: What is your martial status?**

Single	Married	Divorced	Widow/er
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**F12: Do you have children?**

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

**F13: How old are you?**

18-25	26-35	36-45	46-55	56-65	66 and older
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**F14: What is your gender?**

Male	Female
<input type="checkbox"/>	<input type="checkbox"/>

**Corresponding author**

Robert James Harrington can be contacted at: rharrington@wsu.edu

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)