Antecedents and Outcomes of Relationships in Casual Dining Restaurants: The Mediating Effects of Relationship Quality and Moderating Roles of Gender

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**Purpose:** The study examines the mediating effects of relationship quality (RQ) on the relationship between six antecedents and loyalty and the moderating effects of gender on these relationships.

**Design/methodology:** Data were collected from a convenience sample of 300 respondents as they exited well-known casual dining restaurants in Kuala Lumpur (KL), Malaysia.

**Findings:** With the exception of physical environment, food quality, customer orientation, communication, relationship benefits and price fairness were significant predictors of RQ. RQ partially mediates the relationships between its antecedents and loyalty. Multi-group analyses reveal significant differences between males and females on these relationships.

**Research limitations/implications:** At the theoretical level, the study contributes to the conceptualization of RQ in tourism and hospitality research. The sample is not representative of all casual dining restaurants in KL but findings have important implications for restaurant management in terms of relationship marketing, advertising strategies and customer loyalty development.

**Originality:** The study extends existing models of RQ in the hospitality and tourism literature by confirming that RQ is best modeled as a second-order construct consisting of three first-order dimensions: trust, satisfaction and commitment. The study also demonstrates that RQ mediates the relationship between the antecedents of RQ and loyalty. Finally, this research confirms the moderating effects of gender on the hypothesized relationships.

**Keywords:** relationship quality, loyalty, food quality, PLS-SEM, multi-group analysis

**Paper type** – Research paper
Introduction

Relationship marketing (RM) has received considerable attention for its ability to provide superior customer value through building relationships with customers (Grönroos, 1994). Service organizations practicing RM achieve greater financial performance, customer trust, commitment, satisfaction and, competitive advantage over time (Kim et al., 2006). RM is multifaceted and has been studied in terms of a variety of inter-related concepts, including relationship quality, customer trust, and commitment (Athanasopoulou, 2009; Crosby et al., 1990; Morgan and Hunt, 1994). One of the most studied aspects of RM is relationship quality (RQ). RQ is defined as the “degree of appropriateness of a relationship to fulfill customer needs” (Henning-Thurau and Klee, 1997, p.751) and reflected through a combination of trust, commitment and relationship satisfaction (Palmatier et al., 2006). RQ has been intensely studied in the marketing literature (Athanasopoulou, 2009; Holmund, 2001; Vieira et al., 2008), but comparatively, fewer applications to hospitality and tourism services exist (Huyn, 2010; Jones et al., 2007; Lo et al., 2017; Meng and Elliott, 2008). For example, existing studies mainly focus on the hotel sector (Castellanos-Verdugo et al., 2009; Jones et al., 2007; Kim and Cha, 2002; Lo et al., 2017), with emerging research investigating RQ in the restaurant sector (e.g., Hyun, 2010; Jin et al., 2013; Kim et al., 2006; Meng and Elliott, 2008; Nikbin et al., 2016) and travel agencies (Huang et al., 2009; Macintosh, 2007).

Existing theorizations of RQ in hospitality and tourism (e.g., Barry and Doney, 2011; Castellanos-Verdugo et al., 2009; Hyun, 2010; Jin et al., 2013; Jones et al., 2007; Kim and Cha, 2002; Kim et al., 2006; Liang and Wang, 2006; Meng and Elliott, 2008; Nikbin et al., 2016), with one exception (Lo et al., 2017), are diverse and fail to integrate the well-accepted tri-component conceptualization (satisfaction, trust and commitment) of RQ from the marketing literature. Another significant lacuna is the lack of effort in evaluating the effects of
consumer demographics (such as gender) on the relationships between RQ and its antecedents and/or outcomes. With the exception of Jin et al. (2013), current models (Hyun, 2010; Kim and Cha, 2002; Kim et al., 2006; Lo et al., 2017; Meng and Elliott, 2008) fail to recognize that gender differences impact perceptions of RQ and its relationship with loyalty (Athanasopoulou, 2009).

The main objective of this study is to model the antecedents and outcomes of RQ in casual dining restaurants of Kuala Lumpur, Malaysia by investigating the mediating effects of RQ and the moderating effects of gender on the proposed relationships (see Figure 1). The contributions of this study are three-fold. First, we extend existing models of RQ by modelling RQ as a second-order construct consisting of three first-order dimensions (trust, commitment and satisfaction), consistent with research in marketing (e.g. Athanasopoulou, 2009; Barry and Doney, 2011; Henning-Thurau et al., 2001; Palmatier et al., 2006). Modelling RQ as a second-order factor offers several advantages such as reducing the number of variables that need to be estimated without losing measurement accuracy (Koufteros et al., 2009), and providing a more parsimonious and interpretable model compared to first-order factor models (Nunkoo et al., 2017). The current study thus provides an improved measurement of RQ, building on Lo et al.’s (2017) work. Prior research (e.g., Kim and Cha, 2002; Kim et al., 2006; Liang and Wang, 2006) often theorizes satisfaction, trust and commitment as outcomes rather than indicators of RQ. On the other hand, in studies (e.g. Castellanos-Verdugo et al., 2009; Jin et al., 2013) modeling satisfaction and trust as indicators of RQ, the variable commitment is omitted or satisfaction is excluded when trust and commitment are used as indicators (Nikbin et al., 2016). Second, we propose that RQ mediates the relationship between the antecedents of RQ and loyalty. Existing models in the hospitality literature, with the exception of Kim et al. (2006) and Lo et al. (2017), fail to consider the mediating effects of RQ. Finally, RQ research in hospitality and tourism (e.g.
Castellanos-Verdugo et al., 2009; Hyun, 2010; Lo et al., 2017) do not examine how gender moderates the relationship between antecedents and outcomes of RQ and the effect of RQ on loyalty. Previous studies show that female customers generally have higher requirements in terms of food quality and are more sensitive to relational aspects of the service encounter (Ma et al., 2011). Accordingly, understanding the differences between male and female customers in relation to the strength of the factors that predict RQ is critical for building loyalty programmes and improving perceptions of the dining experience.

**Research background and hypotheses development**

*The concept of RQ and its components*

Extensive reviews (e.g., Athanasopoulou, 2009; Holmund, 2001; Palmatier et al., 2006; Vieira et al., 2008) suggest that no agreement exists on the definition or dimensions of RQ. RQ is distinct from other “quality” related concepts such as service quality, refers to an evaluation of interactions with the service provider over time and is implicitly dyadic (Holmund, 200; Vieira et al., 2008). In an earlier theorization, Crosby et al. (1990) suggest that RQ consists of trust and satisfaction. Customer trust is defined as “a confident belief that the salesperson can be relied upon to behave in such a manner that the long-term interest of the customer will be served” (p.70). Satisfaction is as an emotional state that occurs in response to an evaluation of interaction experiences (Westbrook, 1981). One way to develop strong relationships was through satisfied customers (Storbacka et al., 1994) and trust (Morgan and Hunt, 1994). Over the years, two competing school of thoughts have emerged on the dimensionality of RQ. Followers of Crosby et al. (1990) tradition in tourism and hospitality research have successively operationalized RQ in terms of trust and satisfaction
In recent years, a tri-component structure of RQ has emerged in the marketing literature to include commitment (Athanasopoulou, 2009; Barry and Doney, 2011; Henning-Thurau et al., 2001; Palmatier et al., 2006; Storbacka et al., 1994). Commitment refers to the “adaptation processes which are the result of the parties’ intentions to act and positive attitudes towards each other” (Storbacka et al., 1994, p.27). However, commitment remains a contentious component of RQ. Some studies model commitment as an antecedent (e.g. Wong and Sohal, 2002; Vieira et al., 2008) while others (e.g. Kim et al., 2006; Morgan and Hunt, 1994) see commitment as an outcome of trust, therefore as a component of RQ.

In this study, we adopt a tri-component structure of RQ as it offers the best assessment of relationship strength (Palmatier et al., 2006). In hospitality exchanges, customers’ trust, commitment and satisfaction influence the type and intensity of the relationship with a service provider (Kim et al., 2006; Lo et al., 2017). The three components are higher-order constructs of RQ. Trustworthiness of service providers is fundamental to forming business relationships (Crosby et al., 1990; Holmund, 2001; Morgan and Hunt, 1994; Vieira et al., 2008). Trust is an important relational exchange construct, with relationships characterized by trust highly valued and generate commitment (Wong and Sohal, 2002). Commitment, thus, provides the motivation to maintain the relationship (Morgan and Hunt, 1994). Satisfaction on the other hand, is the assurance that the service provider will continue to meet or exceed customers’ expectations based on past performance (Crosby et al., 1990; Vieira et al., 2008). Thus, this study conceptualizes RQ as a higher-order multi-dimensional construct consisting of three sub-factors: trust, commitment and satisfaction.

Antecedents of RQ
A degree of ambiguity surrounds the antecedents and outcomes of RQ (Vieira et al., 2008). The same constructs are often used as predictors and outcomes (Palmatier et al., 2006; Vieira et al., 2008). Antecedents of RQ are highly speculative (Athanasopoulou, 2009), but mainly relate to: sellers’ service domain expertise, relational selling behavior, mutual goals (Crosby et al., 1990), relational value/benefits (Kim et al., 2006; Lo et al., 2017; Morgan and Hunt, 1994; Storbacka et al., 1994), communication (Lo et al., 2017; Meng and Elliott, 2008; Morgan and Hunt, 1994) and customer orientation (Bejou et al., 1996; Lo et al., 2017; Macintosh, 2007; Meng and Elliott, 2008). In hospitality and tourism, previous studies model food quality, price fairness, and physical environment (Hyun, 2010; Kim et al., 2006; Meng and Elliott, 2008; Nikbin et al., 2016), service quality or service excellence and location (Hyun, 2010; Jin et al., 2013), customer orientation (Lo et al., 2017), communication and relationship benefits (Kim et al., 2006; Meng and Elliott, 2008), mutual disclosure and service providers’ performance (Castellanos-Verdugo et al., 2009; Kim and Cha, 2002) as antecedents of RQ. This study identifies six key antecedents of RQ as presented in Figure 1.

[FIGURE 1 HERE]

Physical environment

Also known as physical quality or tangible quality (Kincaid et al., 2010), the physical environment relates to the appearance and condition of amenities, including aesthetics (Jin et al., 2013). The physical environment comprises among others, building exteriors and parking area, dining area, décor and lighting, and cleanliness of the premises (Kim et al., 2006). Empirical support exists for the relationship between the physical environment and the first-order constructs of RQ (satisfaction, trust and commitment). For example, Bitner (1992) posits that environmental cues (e.g., furniture, décor etc.) have an impact on customers’
perceived trustworthiness of a provider. Previous studies have identified a positive relationship between physical environment and RQ (Hyun, 2010; Kim et al., 2006; Meng and Elliott, 2008), irrespective of the type of restaurant (i.e. casual dining or luxury). Hence, we propose that:

**H1:** Physical environment has a positive effect on RQ.

**Food quality**

Food quality is an important but often overlooked aspect of the restaurant experience (Namkung and Jang, 2007; Prayag et al., 2015). Food quality influences customer satisfaction (Han and Hyun, 2017; Namkung and Jang, 2007) and trust (Hyun, 2010). In the context of retailing, research show that perceived food quality is an important antecedent of consumer trust (Shih-Tse Wang and Tsai, 2014). In hospitality, studies have established the positive effect of food quality on the second-order construct of RQ (Kim et al., 2006; Meng and Elliott, 2008). Hence, we propose that:

**H2:** Food quality has a positive effect on RQ.

**Customer orientation**

Customer orientation is the extent an organization and its employees focus their efforts on understanding and satisfying customers (Castellanos-Verdugo et al., 2009). It is purported that customer orientation influences relationship strength through trust, satisfaction and commitment. For example, a customer-oriented organization has a strong commitment to their customers (Lo et al., 2017) and looks for ways to create value (Narver and Slater, 1990). As a result, this leads to a number of positive outcomes such as customer trust and satisfaction.
In hospitality and tourism, customer orientation has been modeled as an antecedent of RQ. Customer oriented restaurants are able to provide service as promised, and staff excel at service interactions (Kim and Cha, 2002). Several studies have established the positive effect of customer orientation on RQ (Castellanos-Verdugo et al., 2009; Kim and Cha, 2002; Kim et al., 2006; Lo et al., 2017; Meng and Elliott, 2008). Accordingly, we propose that:

\( H_3 \): Customer orientation has a positive effect on RQ.

**Communication**

Communication activities during service encounter interactions help to reduce uncertainty and ambiguities in purchase situations (Lo et al., 2017). Through effective communication, service organizations can build trust and aid relationship building (Meng and Elliott, 2008). It is therefore of no surprise that existing studies in marketing (e.g. Vieira et al., 2008) and hospitality (e.g. Kim et al., 2006; Lo et al., 2017) confirm first-order relationships between communication and trust, customer satisfaction and commitment. In fact, communication is a dyadic antecedent of RQ, where the quality, amount and frequency of information shared between the customer and the service provider influences perceptions of RQ (Palmatier et al., 2006). In restaurant settings, the quality of communication between staff and customers is a key determinant of RQ (Kim et al., 2006; Lo et al., 2017; Meng and Elliott, 2008). Hence, we propose that:

\( H_4 \): Communication has a positive effect on RQ.

**Relationship benefits**
The most researched antecedent of RQ is relationship benefits (Palmatier et al., 2006; Vieira et al., 2008), which include aspects such as time savings, convenience, and improved decision making. Customers are more likely to maintain a relationship with a service provider when expectations of receiving the promised benefits exist (Morgan and Hunt, 1994). Restaurants have channeled marketing resources into frequent diner programs to build relationships and encourage repeat business (Kim et al., 2006). Such activities encourage customers’ willingness to develop relational bonds (Palmatier et al., 2006). Empirical work confirms that relationship specific investment leads to greater customer commitment (Anderson and Weitz, 1992), satisfaction (Kim et al., 2006; Reynolds and Beatty, 1999), and trust (Meng and Elliott, 2008). Previous studies also identify the positive influence of relationship benefits on RQ as a second-order construct (Kim et al., 2006; Meng and Elliott, 2008). Accordingly, we propose that:

\[ H_5: \] Relationship benefits have a positive effect on RQ.

**Price fairness**

Fairness is a multidimensional construct consisting of distributional, procedural and interactional fairness (Ruyter and Wetzels, 2000). Service fairness is understood in terms of price fairness (the price paid), procedural fairness (the time spent), outcome fairness (the favorability of the non-interactional form of service), and interactional fairness (the way customer was treated) (Namkung et al., 2009). In this study, the focus is on price fairness, representing the amount of economic expense the consumer sacrifices to obtain the product or service (Namkung et al., 2009). Based on equity theory, customers evaluate service outcomes better when an organization displays higher levels of perceived fairness (Carr, 2007). Several
studies have established price fairness as an antecedent of RQ (e.g., Hyun, 2010; Kim et al., 2006; Meng and Elliott, 2008; Nikbin et al., 2016). Hence, we propose that:

\[ H_6: \text{Price fairness has a positive effect on RQ.} \]

**RQ and customer loyalty**

Customer loyalty is “a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future” (Olivier, 1999, p.34) is central to RM (Henning-Thurau et al., 2001). It is accepted that a satisfied and committed customer develops a strong relationship with the service provider leading to positive behavioral outcomes (Storbacka et al., 1994). Prior studies (e.g. Henning-Thurau et al., 2001) support a positive relationship between the three dimensions of RQ (satisfaction, trust, and commitment) and customer loyalty. In addition, Han and Ryu (2007) found that in upscale restaurants, improving customer satisfaction leads to behavioral loyalty through increased revisiting and recommendation intentions. Both marketing and hospitality literatures converge around customer retention or loyalty as the key outcome of RQ (Athanasopoulou, 2009; Hyun, 2010; Jin et al., 2013; Kim et al., 2006). As such, we propose that:

\[ H_7: \text{RQ is positively related to customer loyalty.} \]

**Mediating effects of RQ**

Existing models of RQ (Castellanos-Verdugo et al., 2009; Jin et al., 2013; Kim and Cha, 2002; Kim et al., 2006; Meng and Elliott, 2008) hypothesize direct effects of various antecedents such as food quality, customer orientation, physical environment, communication and price fairness on RQ. Prior studies also show the direct effects of, for example, food
quality, physical environment, communication and relationship benefits on loyalty (Kincaid et al., 2010). However, with the exception of Kim et al. (2006), none of these models evaluate the indirect effects of RQ on the relationship between the six antecedents and loyalty. Hence, we propose that:

**H₈:** RQ mediates the relationships between its antecedents and customer loyalty

**Moderating Role of gender**

Previous research examines gender-based similarities and differences in the dining experience (Jin et al., 2013; Ma et al., 2014) and the moderating role of gender on service evaluations (e.g. Sanchez-Franco et al., 2009; Ma et al., 2014). Selectivity theory has been used to explain gender based differences in restaurants evaluation concluding that females differ in terms of their attitude formation process (Kwun, 2011). Female customers are generally more attentive to food quality compared to males (Ma et al., 2011). Females are more sensitive to relational aspects (such as communication and customer orientation) of service delivery (Iaccobucci and Ostrom, 1993) and would therefore exhibit stronger RQ. Gender differences also exist on perceptions of service fairness with male customers rating fairness higher (Snipes et al., 2006). In addition, females tend to assimilate available cues and engage in a more comprehensive analysis of information when interacting with the physical environment (Sanchez-Franco et al., 2009). Also, Jin et al. (2013) found that the relationship between RQ and loyalty was stronger for females in restaurant settings. Hence, we propose that:

**H₉:** Gender moderates the relationship between RQ, its antecedents and customer loyalty
Methods

Study context – Malaysia and casual dining restaurants

Culture has an influence on RQ (Barry and Doney, 2011; Kim et al., 2006) and collectivist cultures put different emphasis on the antecedents and components of RQ. Yet, RQ remains to be tested in Asian countries, in particular, Malaysia (Ndubisi et al., 2011). Eating out is an important facet of Malaysian culture and lifestyle (Nikbin et al., 2016). According to a World Bank report, GDP per capita in Malaysia in 2016 amounted to US $9,508. According to the Department of Statistics Malaysia (DOSM, 2017), the value of gross output generated by the food and beverage sector was RM 66.4 billion in 2015.

In addition, prior research investigates RQ in mainly chain (Hyun, 2010) and fine-dining/luxury restaurants (Kim et al., 2006; Meng and Elliott, 2008; Nikbin et al., 2016). Quality perceptions of foodservice in Malaysia have been studied before (e.g. Bougoure and Neu, 2010; Kueh and Voon, 2007) but not in the context of casual dining restaurants. Casual dining restaurants offer either full service or quick service (Ryu et al., 2008), with moderately priced food and beverages in a comfortable atmosphere. As such, the importance of food quality, service, and physical environment differs from upscale or luxury restaurants (Kim et al., 2006; Kincaid et al., 2010; Ryu et al., 2008) but still impacts customers’ overall evaluations and future behavior (Prayag et al., 2015).

Survey instrument

Items for the six predictors of RQ were adapted from previous studies. “Physical Environment” and “Food Quality” were operationalized using four and three statements respectively. Five items captured “Customer Orientation” and four items measured “Communication”. “Relationship Benefits” and “Price Fairness” were operationalized using
five and four statements respectively. “Relationship Quality” was modeled as a second-order reflective construct, consisting of three dimensions: Commitment, Trust and Satisfaction. MacKenzie et al. (2005, p.715) note that a higher order measurement “faithfully represents all of the conceptual distinctions that the researcher believes are important, and it provides the most powerful means of testing and evaluating the construct”. Items for the trust scale were derived from prior studies (e.g. Jin, 2015; Jin et al., 2013; Kim et al., 2006; Meng and Elliott, 2008). Commitment was measured using two items (Kim et al. 2006) and satisfaction was captured using three statements (Kim et al., 2006; Meng and Elliott, 2008). Customer loyalty was measured using four items adapted from Hyun (2010). Consistent with previous studies (Castellanos-Verdugo et al., 2009), all statements were measured on a five-point scale where 1=strongly disagree and 5=strongly agree. Customer characteristics such as age, gender, education level, marital status, and average monthly income were also captured. The survey instrument was pre-tested on a sample of 30 diners that often patronize casual dining restaurants, resulting in minor modifications.

As data were collected via self-reported questionnaire, the presence of Common Method Variance (CMV) was tested using Harman one factor test (Podsakoff et al., 2003). The unrotated exploratory factor analysis (EFA) identifies ten factors with an Eigenvalue above 1, explaining 67.9% of the total variance with the first factor accounting for 29.02% of the total variance. The Kaiser-Meyer-Olkin (KMO) was 0.88 (> than 0.5) and Bartlett’s Test of Sphericity was significant at .00 (below p < 0.05). Thus, preliminary analysis shows that CMV is not a pervasive issue in the data.

Sampling and data collection

In this study, casual dining restaurants are characterized as those wherein a person spends on average RM 30 to 40. Given the lack of a suitable sampling frame for identifying
casual dining restaurants in KL, customers of six restaurants were targeted (T.G.I Fridays, Nando's, Sakae Sushi, Dragon-I, Chili's, and Bubba Gump) on a convenience basis. These brands represent some of the leading consumer foodservice chains in Malaysia (Euromonitor International, 2010) and are similar in terms of service styles and targeted customer groups.

Trained research assistants approached 400 customers as they exited the 6 restaurants. Respondents were invited to participate in the study and if they agree, self-completed the questionnaire on site. Given that Malaysia has several official languages including Malay and English, to avoid issues of translation and insufficient understanding of the survey instrument, respondents were screened on the basis of their English proficiency. According to the English Proficiency Index (EPI), Malaysia is ranked 2nd in Asia and 13th out of 80 countries in terms of English proficiency (EFEPI, 2017). Khoo-Lattimore & Prayag (2016, p.2753) further note that “English is a second language in Malaysia and widely used in business communication and daily conversations.

A total of 300 valid cases were retained for subsequent analyses. The sample was almost equally split between females (51.7%) and males (48.3%). In terms of age groups, the sample consists of: 19-26 years old (37.7%), 27-34 years old (25.3%), 35-42 years old (21%), and 43-50 years old (10.7%). More than half (54%) of respondents had completed undergraduate degrees, 25.7% had post-graduate qualifications and 9.3% were educated up to high school. Approximately a quarter (25.3%) of respondents were married with children, 21% married without children, and 51.3% were single. In terms of average monthly income, 45% of the sample earned between RM 1001 to RM 3000, 24% earned between RM 3001 to RM 5000, and 13% earned more than RM 5000.

Data Analysis
Partial Least Square (PLS) path modelling (Lohmöller, 1989) was used to test the hypothesized model. PLS is suitable for predictive applications and theory building (Hair et al., 2017). PLS path analysis is defined in terms of 2 sets of linear relations: inner and outer models. The inner model specifies the relationship between unobserved or latent variables, similar to CBSEM (Covariance Based Structural Equation Modelling) structural models. The outer model shows the relationship between a latent variable and observed variables (Lohmöller, 1989). The hypothesised model was estimated using SmartPLS3.23 with a bootstrap re-sampling procedure (5,000 sub-samples were randomly generated) (Hair et al., 2017).

**Results**

*Measurement model*

Following Hair et al. (2017) recommended guidelines, reliability, convergent, and discriminant validity of the study’s main constructs (see Tables 1 and 2) were first established before testing the structural model. From Table 1, composite reliability (CR) for all scales was above the recommended threshold of .70 (range from 0.79 to 0.91), indicating the measures are reliable (Fornell and Larcker, 1981).

[TABLE 1 HERE]

The significance of factor loadings and average variance extracted (AVE) were used to assess convergent validity. From Table 1, factor loadings are greater than .60 and are significant ($p < 0.05$). Average variances extracted are above 0.50, establishing convergent validity (Fornell and Larcker, 1981). Discriminant validity was examined by comparing the
square root of AVE for individual constructs with correlations among the latent variables. From Table 2, results suggest strong evidence of discriminant validity. The Heterotrait-monotrait (HTMT) ratio (Henseler et al., 2015; Wells et al., 2016) was used to further test discriminant validity. All HTMT ratios (ranging from 0.36 to 0.64) were lower than the 0.85 threshold, indicating good discriminant validity.

Three steps were followed to confirm RQ as a second-order construct. First, EFA indicates that all items loading were above 0.5 for the underlying sub-scales. Second, as shown in Table 1, composite reliability and AVE values were above the recommended threshold. Finally, adopting the repeated indicators approach, a hierarchical component model was estimated using PLS (Becker et al., 2012). Results show that the relationships between RQ and its sub-scales, trust (0.833; \( t = 37.242 \)) commitment (0.781; \( t = 18.713 \)) and satisfaction (0.872; \( t = 61.432 \)) were significant. \( R^2 \) for each factor was larger than the recommended value of 0.5 (i.e. \( R^2_{\text{trust}} = 0.691 \); \( R^2_{\text{satisfaction}} = 0.770 \); and \( R^2_{\text{commitment}} = 0.573 \)), indicating that RQ explain more than 50% of the variance in its sub-scales (Becker et al., 2012). Thus, RQ is a second-order construct represented reflectively by trust, commitment and satisfaction.

[INSERT TABLE 2 HERE]

*Structural Model and hypothesis testing*

The structural model (Figure 1) was evaluated using \( R^2 \) estimates, standardized path coefficients (\( \beta \)), and significance level (\( t \)-values). \( R^2 \) values exceed the recommended 0.10 threshold (Hair et al., 2017). The model explains 60% of variance in RQ and 31% of variance in customer loyalty. The Standardized Root Mean Square (SRMR) value for the model (0.063) was acceptable. Next, effect sizes (\( f^2 \)) for the significant direct paths were tested
following Cohen’s (1992) guidelines, with 0.02 denoting small effects, 0.15 for medium effects, and 0.35 for large effects (Table 3). Using a blindfolding procedure, Stone-Geisser’s $Q^2$ values were employed to assess the predictive relevance of the model (Hair et al., 2017). All $Q^2$ values were greater than zero ($Q^2_{RQ} = 0.193$; $Q^2_{Loyalty} = 0.282$), indicating acceptable fit and satisfactory predictive relevance.

Table 3 shows standardized path coefficients and $t$-values for the model. Contrary to our theoretical predictions, the path coefficient between physical environment and relationship quality ($\beta=0.052$; $p>0.05$) was not significant, thus rejecting $H_1$. $H_2$ proposes a positive relationship between food quality and relationship quality. The path coefficient ($\beta=0.132$) is significant ($p<0.01$), thus supporting $H_2$. Results also confirm the hypotheses ($H_3$, $H_4$, $H_5$, and $H_6$) linking customer orientation ($\beta=0.175$; $p<0.01$), communication ($\beta=0.165$; $p<0.01$), relationship benefits ($\beta=0.304$; $p<0.01$) and price fairness ($\beta=0.134$; $p<0.01$) to relationship quality. Finally, as hypothesized ($H_7$), the parameter estimate between relationship quality and customer loyalty is positive and significant ($\beta=0.493$; $p<0.01$).

Correlation analysis (see Lee et al., 2016) was used to further assess the relationship between the higher-order constructs of RQ and customer loyalty. Results indicate that each sub-dimension of RQ has varying positive relationship with customer loyalty. In particular, satisfaction had the largest influence on customer loyalty (bootstrapped correlation: 0.344; confidence interval (CI): 0.301 – 0.421), followed by trust (bootstrapped correlation: 0.266; CI: 0.221 – 0.322) and commitment (bootstrapped correlation: 0.185; CI: 0.091 – 0.287).

Mediating effect ($H_8$) was established using 95% CI with a bootstrapping procedure (n=5000), in line with recommended guidelines (e.g. Williams and MacKinnon, 2008). The
A direct relationship between physical environment and the mediator (RQ) was not significant hence fail to meet the condition for mediating effects (Baron and Kenny, 1986). However, for the other variables, results show that food quality (indirect effect = 0.112, $t = 2.832$, CI = [0.081, 0.152]), customer orientation (indirect effect = 0.082, $t = 2.831$, CI = [0.062, 0.122]), communication (indirect effect = 0.081, $t = 2.587$, CI = [0.061, 0.107]), relationship benefits (indirect effect = 0.152, $t = 3.493$, CI = [0.112, 0.193]), and price fairness (indirect effect = 0.082, $t = 2.117$, CI = [0.053, 0.113]) indirectly influence loyalty through RQ. Results therefore indicate that RQ mediates the effect of these variables on loyalty.

**Moderating role of gender: Multi-group analysis**

Prior to running multi-group analysis (MGA) to compare the path coefficients between male and female customers, measurement invariance was assessed (Hair et al., 2017; Henseler et al., 2016). Adopting Henseler et al.’s (2016) recommendations, a three-step Measurement Invariance of Composite Models (MICOM) procedure was followed and include i) configural invariance, ii) compositional invariance, and iii) scalar invariance (equality of composite means and variances). The analysis of differences in factor loadings between the 2 groups is non-significant (Welch-Statterthwaite and permutation tests $p$-value > 0.05), thus establishing configural invariance. For full measurement invariance, compositional and scalar invariance was also achieved. Once measurement invariance was established, MGA was used to assess the role of gender on the hypothesized relationships. Two different procedures were followed to test the differences in the path model for males and females, namely i) Henseler et al.’s (2009) bootstrap-based MGA; and ii) the permutation test (Rasoolimanesh et al., 2017). Both approaches use $p$-value to test the differences between males and females. Table 4 shows significant differences between male and female respondents in relation to $H_2$, $H_4$, $H_5$ and $H_7$. 

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Discussions and Implications

The purpose of this study was to empirically test a model linking the antecedents and outcomes of RQ in casual dining restaurants of Malaysia. The study also investigates the mediating effects of RQ and the moderating effects of gender. The strong relationship between RQ and customer loyalty is consistent with previous studies in other contexts such as hotels (Castellanos-Verdugo et al., 2009), and travel agencies (Macintosh, 2007). In comparison to other settings, the relationship between customer orientation and RQ is stronger in the context of casual dining restaurants. However, food quality, customer orientation and price fairness reveal relatively lower magnitude relationships with RQ when compared to luxury restaurants (e.g. Kim et al., 2006, Meng and Elliott, 2008).

In addition, the role of physical environment as a predictor of RQ was not supported, contrary to our predictions but consistent with Kim et al.’s (2006) study. The unique setting of Malaysia offers some plausible explanations. In general, food is inexpensive in Malaysia and street food is popular. As a result, this might reduce the importance of physical environment in customers’ dining experience. Moreover, the association between relationship benefits and RQ is stronger in this study when contrasted with findings in the context of luxury restaurants (e.g. Kim et al., 2006; Meng and Elliott, 2008), indicating that customers attached more importance to value.

RQ mediates the influence of food quality, customer orientation, communication, relationship benefits, and price fairness on customer loyalty. The results extend current theorizations of RQ (e.g. Jin et al., 2013; Kim and Cha, 2002; Lo et al., 2017). Findings
support Kim et al. (2006) proposition that RQ is a significant mediating variable in RM models. The antecedents of RQ indirectly influence loyalty through consumers’ satisfaction, trust and commitment providing support to studies in marketing (Bejou et al., 1996; Morgan and Hunt, 1994) and hospitality (Hyun, 2010; Kim et al., 2006; Lo et al., 2017; Nikbin et al., 2016).

Furthermore, the non-significant differences between males and females in terms of the effects of physical environment, customer orientation and price fairness on RQ suggest that these factors are of similar importance to both gender groups in the context of casual dining restaurants. In addition, findings of MGA show significant differences in male and female customers in terms of the effects of food quality, communication, relationship benefits on RQ and the impact of RQ on customer loyalty. Findings extend Jin et al.’s (2013) study by showing that in full service restaurants male and female diners value factors other than escapism and service excellence. The higher importance attached to food quality by female diners also confirm previous research (Ma et al., 2011; Harrington et al., 2011).

From a methodological perspective, the study supports the notion that RQ is a tri-component structure or higher-order construct (Athanasopoulou, 2009; Barry and Doney, 2011; Henning-Thurau et al., 2001; Palmatier et al., 2006). In other words, this research confirms RQ as a second-order construct represented reflectively by three components: satisfaction, commitment and trust. The current research builds on previous calls (e.g., Lo et al., 2017) to further assess the dimensionality of RQ by employing a higher-order model. More specifically, to the best of our knowledge, this is the first study to use MICOM, Henseler et al.’s (2016) MGA and the permutation method to perform higher-order PLS-MGA in hospitality and tourism research. In addition, unlike previous studies (e.g., Lo et al., 2017), findings show that each dimension of RQ has varying positive influence, establishing
RQ as an important antecedent of customer loyalty (Athanasopoulou, 2009; Barry and Doney, 2011; Hyun, 2010; Kim et al., 2006).

Managerial implications

The findings offer several implications for restaurant management in terms of relationship marketing, advertising strategies and customer loyalty development. Results indicate there are differences (and similarities) between male and female diners. For example, customer orientation and price fairness is important for both male and female customers. However, male diners’ value relationship benefits more while female diners’ value food quality. On the basis of these findings, restaurant managers should aim to develop differential advertising strategies. For example, given that female diners are more sensitive to food quality attributes such as taste and appearance, casual dining restaurants can use female actors and spokespersons in advertising to highlight the distinctiveness of the food provision.

Furthermore, differences identified in terms of gender suggest the need for segmentation. Developing and implementing tactics that incorporate targeted deals and discounts to each customer groups will increase a sense of preferential treatment. In turn, these activities strengthen the bond with the service provider and increase loyalty. Relationships with service providers are inherently social (Liang and Wang, 2006), but as findings suggest, some customer groups prefer social benefits (such as personal recognition and friendship of staff) instead of functional benefits (in the form of discounts and special offers). Recognizing such differences will improve segmentation, targeting and positioning strategies of casual dining restaurants in KL. Findings are also relevant to restaurant managers in identifying service dimensions and experiences that need prioritization among different customer segments (Sharma et al., 2012).
In addition, results show that customer orientation is an antecedent of RQ in casual dining restaurants. As such, this highlights the importance of service providers with front line staff empowered and motivated (Macintosh, 2007). Other service organizations such as banks and travel agencies can be used as benchmarks for restaurants in this study to improve their communication and customer retention programs. Moreover, the gender based differences on several of the relationships identified in this study highlight the importance of women in the context of dining experiences. According to Margot Dorfman, founder and CEO of the U.S. Women’s Chamber of Commerce, given women’s role in the family unit, they tend to control purchasing decisions with respect to healthy options for children. This has implications for many industries, but especially for dining and foodservice (Omazic, 2014).

Limitations and further research

Results of this study should be interpreted with caution due to several limitations. First, the choice of a convenience sampling method has an impact on the generalizability of the findings but nonetheless remain informative for restaurant managers of casual dining restaurants in KL. Second, statements used to measure commitment focuses on the affective component. Future studies should also include cognitive commitment (Jones et al., 2007) when modeling RQ. Third, data were collected in KL and future studies should use a larger sample from other regions in Malaysia for comparisons and further validation, Fourth, future studies can include other antecedents such as perceived value, relationship bonds, and relationship investment (Barry and Doney, 2011) and outcomes such as relationship continuity, share of purchases (Castellanos-Verdugo et al., 2009) and service providers’ perspective (Kim and Cha, 2002) in the model. Fifth, the sample was restricted to respondents conversant with the English language, potentially introducing sampling bias given that diners
fluent in other languages were not invited to participate in this research. Hence, the study incorporates views of the more educated diners in KL. Finally, other moderating variables such as dining frequency, age, and income on RQ and its predictors and outcomes should be investigated for a more holistic understanding of RM in the restaurant industry.
References


Bitner, M. J. (1992), “Servicescapes: The impact of physical surroundings on customers and


EF English Proficiency Index (EFEPi) (2017), Available at: [https://www.ef.co.uk/epi/regions/asia/malaysia/](https://www.ef.co.uk/epi/regions/asia/malaysia/) (Accessed on 15.03.18).


### Table 1 Assessment of the Measurement Model

<table>
<thead>
<tr>
<th>Items</th>
<th>Standardized Loadings</th>
<th>t-values***</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant has visually attractive building exteriors and parking area.</td>
<td>0.862</td>
<td>20.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant has a visually attractive dining area that is comfortable and easy to move around within.</td>
<td>0.822</td>
<td>35.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant has appropriate music and illumination in keeping with its atmosphere.</td>
<td>0.743</td>
<td>17.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant has clean and elegant dining equipment.</td>
<td>0.731</td>
<td>17.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Food Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of food and beverage is consistently high during each visit.</td>
<td>0.761</td>
<td>15.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant offers excellent taste of food.</td>
<td>0.861</td>
<td>37.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant offers excellent appearance of food.</td>
<td>0.763</td>
<td>31.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dining staff is friendly.</td>
<td>0.622</td>
<td>11.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dining staff is always willing to help you.</td>
<td>0.743</td>
<td>17.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dining staff is knowledgeable.</td>
<td>0.681</td>
<td>22.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dining staff is confident.</td>
<td>0.811</td>
<td>22.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dining staff understands your specific needs.</td>
<td>0.712</td>
<td>12.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant offers consistent communication through restaurant newsletters online or direct mail.</td>
<td>0.833</td>
<td>32.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The staff provides information about new events or special promotion programs.</td>
<td>0.811</td>
<td>41.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The restaurant is active in providing mass media advertising and telemarketing service.</td>
<td>0.811</td>
<td>34.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive regularly scheduled personal letters online (e.g., birthday and anniversary cards) from the restaurant.</td>
<td>0.753</td>
<td>31.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relationship Benefits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get discounts or special deals that most customers don’t get.</td>
<td>0.773</td>
<td>15.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was treated as a special and valued customer.</td>
<td>0.793</td>
<td>34.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I regularly receive information about a new product, special occasions, and promotions.</td>
<td>0.813</td>
<td>50.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am recognized by certain dining staff.</td>
<td>0.823</td>
<td>24.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I value the close, personal relationship I have with the dining staff.</td>
<td>0.693</td>
<td>12.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Price Fairness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The food prices at this restaurant are fair.</td>
<td>0.871</td>
<td>31.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The beverage prices at this restaurant are fair.</td>
<td>0.854</td>
<td>22.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The price charged by this restaurant is appropriate.</td>
<td>0.881</td>
<td>41.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The price charged by this restaurant is rational.</td>
<td>0.820</td>
<td>44.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relationship Quality- Second-order Trust</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The quality of service at this restaurant is consistently high.</td>
<td>0.857</td>
<td>33.90</td>
<td>0.707</td>
<td>0.571</td>
</tr>
<tr>
<td>The service performances at this restaurant always meet my expectations.</td>
<td>0.883</td>
<td>29.67</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The ingredients and quality of food at this restaurant are reliable. 0.672 8.65

**Commitment**

- My level of emotional attachment to this restaurant is high. 0.891 23.07
- My relationship with this restaurant has a great deal of personal meaning to me. 0.903 60.89

**Satisfaction**

- My level of satisfaction with the quality of service is high. 0.865 35.01
- My overall satisfaction with this restaurant is consistently high. 0.862 23.01
- My overall satisfaction with this restaurant is high compared with other restaurants 0.722 32.09

**Customer Loyalty**

- I have a strong intention to visit this restaurant again. 0.913 31.97
- I consider this restaurant as my first choice compared to other restaurants. 0.847 35.23
- I want to tell other people positive things about this restaurant. 0.842 75.01
- I want to recommend this restaurant to my friends and relative. 0.873 63.11

*Note: ***3.29 (p<0.001); AVE=average variance extracted*

### Table 2 Correlation matrix.

<table>
<thead>
<tr>
<th></th>
<th>CO</th>
<th>CU</th>
<th>FQ</th>
<th>CL</th>
<th>PE</th>
<th>PF</th>
<th>RB</th>
<th>RQ</th>
<th>C</th>
<th>SA</th>
<th>TU</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>0.720</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CU</td>
<td></td>
<td>0.463</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FQ</td>
<td></td>
<td>0.472</td>
<td>0.312</td>
<td>0.802</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CL</td>
<td></td>
<td>0.312</td>
<td>0.423</td>
<td>0.273</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td></td>
<td>0.293</td>
<td>0.182</td>
<td>0.494</td>
<td>0.152</td>
<td>0.791</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF</td>
<td></td>
<td>0.273</td>
<td>0.313</td>
<td>0.322</td>
<td>0.423</td>
<td>0.273</td>
<td>0.851</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RB</td>
<td></td>
<td>0.434</td>
<td>0.623</td>
<td>0.412</td>
<td>0.451</td>
<td>0.294</td>
<td>0.493</td>
<td>0.771</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ</td>
<td></td>
<td>0.504</td>
<td>0.536</td>
<td>0.464</td>
<td>0.493</td>
<td>0.321</td>
<td>0.444</td>
<td>0.622</td>
<td>0.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>0.434</td>
<td>0.504</td>
<td>0.275</td>
<td>0.530</td>
<td>0.212</td>
<td>0.403</td>
<td>0.593</td>
<td>0.683</td>
<td>0.810</td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td></td>
<td>0.374</td>
<td>0.423</td>
<td>0.412</td>
<td>0.382</td>
<td>0.272</td>
<td>0.362</td>
<td>0.501</td>
<td>0.452</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TU</td>
<td></td>
<td>0.461</td>
<td>0.421</td>
<td>0.432</td>
<td>0.360</td>
<td>0.301</td>
<td>0.361</td>
<td>0.492</td>
<td>0.531</td>
<td>0.503</td>
<td>0.542</td>
</tr>
</tbody>
</table>

*Note: CO= Customer Orientation; CU= Communication; FQ= Food Quality; CL= Customer Loyalty; PE= Physical Environment; PF= Price Fairness; RB= Relationship Benefits; RQ= Relationship Quality; C=commitment; SA=satisfaction; TU = trust. AVEs for RQ is absent as RQ was specified as a higher-order model, with AVEs only relevant to its dimensions.*

### Table 3 Results for the direct relationships

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path coefficient</th>
<th>t-value</th>
<th>f²</th>
<th>Supported?</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Physical Environment → RQ</td>
<td>0.052</td>
<td>1.172**</td>
<td>0.07</td>
<td>No</td>
</tr>
<tr>
<td>H2 Food Quality → RQ</td>
<td>0.132</td>
<td>4.056***</td>
<td>0.02</td>
<td>Yes</td>
</tr>
<tr>
<td>H3 Customer Orientation → RQ</td>
<td>0.175</td>
<td>3.116**</td>
<td>0.04</td>
<td>Yes</td>
</tr>
<tr>
<td>H4 Communication → RQ</td>
<td>0.165</td>
<td>2.595**</td>
<td>0.16</td>
<td>Yes</td>
</tr>
<tr>
<td>H5 Relationship Benefits → RQ</td>
<td>0.304</td>
<td>4.214***</td>
<td>0.46</td>
<td>Yes</td>
</tr>
<tr>
<td>H6 Price Fairness → RQ</td>
<td>0.134</td>
<td>2.824**</td>
<td>0.46</td>
<td>Yes</td>
</tr>
<tr>
<td>H7 RQ → Customer loyalty</td>
<td>0.493</td>
<td>10.213***</td>
<td>0.46</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Note: ***3.29 (p<0.001); **2.58 (p < 0.01); *1.96 (p<0.05); n.s. =not significant.*
Table 5. MGA results

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Female β differences</th>
<th>Male β differences</th>
<th>Henseler’s MGA p-value test</th>
<th>Permutation p-value test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Physical Environment → RQ</td>
<td>0.161**</td>
<td>0.053n.s.</td>
<td>0.218</td>
<td>0.276</td>
<td>No</td>
</tr>
<tr>
<td>H2 Food Quality → RQ</td>
<td>0.168**</td>
<td>0.037n.s.</td>
<td>0.001</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>H3 Customer Orientation → RQ</td>
<td>0.247***</td>
<td>0.201**</td>
<td>0.147</td>
<td>0.177</td>
<td>No</td>
</tr>
<tr>
<td>H4 Communication → RQ</td>
<td>0.123***</td>
<td>0.287***</td>
<td>0.002</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td>H5 Relationship Benefits → RQ</td>
<td>0.289***</td>
<td>0.380***</td>
<td>0.000</td>
<td>0.002</td>
<td>Yes</td>
</tr>
<tr>
<td>H6 Price Fairness → RQ</td>
<td>0.132n.s.</td>
<td>0.213**</td>
<td>0.378</td>
<td>0.301</td>
<td>No</td>
</tr>
<tr>
<td>H7 RQ → Customer loyalty</td>
<td>0.456***</td>
<td>0.624***</td>
<td>0.003</td>
<td>0.022</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: ***p<0.001; **p < 0.01; *p < 0.05; n.s. = not significant.

Figure 1. Conceptual model.