

Full Length Research Paper

Mediating effect of relationship quality on customer loyalty in franchising beverage store

Ching-Hsu Huang

Department of Hotel and Restaurant Management, National Pingtung University of Science and Technology, No.1 Hseuh-Fu Road, Nei-Pu, Pingtung, 912, Taiwan, R.O.C.

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The purpose of this study was to provide a casual model to explain the effect of relationship quality on customer loyalty via the mediating effect which might be provided by customer satisfaction. The 335 subjects were randomly selected from 49 franchising beverage stores in Taiwan. The proposed casual model of three variables was developed. Structure equation modelling was conducted to explore customer group homogeneously and examine the mediating effect. The results indicate that relationship quality can result to customer loyalty via increasing customer satisfaction, thus, affecting the firm's relationship quality leading to customer intention through customer satisfaction. The study also examined whether the model differed across segments. The subsequent multi-group analyses suggested that the research models are vary across different consumption patterns demographic segments, such as age, income and occupation. The managerial implications of findings for the franchising beverage stores and further research are discussed.

Key words: Customer loyalty, relationship quality (RQ), customer satisfaction, mediator.

INTRODUCTION

There is growing interest among researchers and business firms in knowing when and how consumers behave in service industry, what generate customer loyalty, and the resulting repeat patronage and firms' increased profit. As part of understanding these regards, identifying the major factors that influence customer loyalty has been viewed as a fruitful method in the study of consumer behaviour (Athanasopoulou, 2009).

Creating customer loyalty and developing long-term relationships with customers have become the main streams in marketing research and have received lots of attention from hospitality professionals in both academia and industry (Hu et al., 2009; Kim and Han, 2008; Beatson et al., 2008; Sanchez et al., 2007; Moliner et al., 2007; Ling and Wang, 2006).

Relationship marketing in the service delivery process has important implications for service organizations and

customers. Many studies have advocated the importance of relationship marketing in the service production and delivery process (Christopher et al., 1991). Recently, research has begun to address the impact of relationship marketing on customer loyalty. Some variables were found to be the mediators between these two variables, such as relationship quality and customer satisfaction (Tseng, 2007; Bennett and Barkensjo, 2005; Hennig-Thurau et al., 2002; Oliver et al., 1997).

Previous research studies provided dramatically various conceptual frameworks on these. Many considerable overlap exist among variables selection in the models. The developmental trends of relationship quality are looking at the dimensions that make up RQ in different stages and circumstances.

Athanasopoulou (2009) provided a general framework to guide the further research for variable selection while

development the conceptual model of RQ related studies. It suggested that further research should focus on more different service industries and test the RQ models from other side of relationship to find out the casual relationship among the RQ dimensions, antecedents and consequences in the models. In addition, the studies of cultural traits and the significance in relationship quality in various conceptual models are rare.

Leonidou et al. (2006) recommended the further research need to further examine customers' cultural characteristics and the impacts on cross-broader relationship. Therefore, the aim of this study was to investigate the role of the relationship quality and customer satisfaction as a mediator of the effect of relationship quality on customer loyalty at franchising beverage stores in Taiwan. It tried to examine the casual relationship among related RQ variables. Most importantly, this study proposed customer satisfaction as a mediator which helps RQ to influence the customer loyalty.

Problem statement

While the franchising beverage stores (FBS) are overwhelming in the foodservice market in Taiwan, there is currently a lack of in FBS via relationship quality with respect to relationship marketing issues, while FBS not only affected the foodservice industry in Taiwan, but also education, work, travel, leisure, dieting, politics, the family, and virtually every other aspect of society. It played a significant role of shaping the Taiwanese culture that is similar with western McDonaldization (Lin and Lu, 2008; Hu, 2002; Chan and Lee; 2000) so, customer behaviours in foodservice industry created a dilemma between commercial and educational qualifications. Understanding the customers' attitudes toward specific foodservice firms through the relationship marketing process can help us to understand their thoughts and trends.

Relationship marketing studies contribute to a better understanding of customer behaviours, intergenerational influences, and the impact of seller-buyer relationship trends on consumer behaviours (Palmatier et al., 2006). Such information allows the predictions of market share and the potential economic prowess of customers in the service industry through the casual relationship. It also provides significant suggestions for business to control the consumer relationship management. In the conceptual model of RQ, this study assumed customer satisfaction as a mediator and relationship satisfaction is the agent under the ambiguous role between relationship quality and satisfaction.

Palmatier et al. (2006) asserted both relationship quality and satisfaction are customer-focused relational mediators in the relationship marketing models. In the

models, the antecedents are relationship benefit, seller expertise, interaction frequency and others and the outcomes are customer loyalty, worth of mount, seller objective performance, or cooperation.

Few studies have examined relationship quality influence on customer loyalty via satisfaction in the foodservice industry, especially with regard to particular types of food and beverage industry. Customer satisfaction had been proven to have great influence on loyalty, but the role of relationship quality in the models is the weakest.

Recently, the majority of the RQ studies in foodservice area examined the whole conceptual models by using structural equation modeling (SEM) which is a powerful statistical technology. Those studies tried to build new RM models, test the RQ models or examine the proposed RM casual relationship rather than discussed the mediating effects or moderated effects (Hu et al., 2009; Beatson et al., 2008; Sanchez et al., 2007; Moliner et al., 2006; Ling and Wang, 2006; Kim and Cha, 2002). Only Kim and Han (2008) examined the mediating effect of relationship quality. Unfortunately, they analysed the data by using regression which cannot assess the simultaneity of all relationships at the same time in the models.

Therefore, the aims of this study are to advance the theoretical understanding in the casual relationship of RM, and to generate hypotheses to test for the variable-effect on customer loyalty specifically in FBS. Generally speaking, the purposes of this exploratory study are to examine the mediating effects of customer satisfaction between RQ and the customer loyalty in FBS.

LITERATURE REVIEW

Relationship quality had been regarded as a higher-order construct and critical role in the customer decision-making or post-purchase process in marketing concept (Kim et al., 2006; Morgan and Hunt, 1994; Crosby et al., 1990). It has been viewed as one of the critical indicators that measure the strength of the customer relationship (Garbarino and Johnson, 1999). Crosby et al. (1990) thought that that relationship quality is the main factor that affects customers' repurchasing behaviour. High relationship quality means that the customers are consistently satisfied with the performance provided by firms in the past consumption experience.

Relationship quality is a higher-order construct and consists of several distinct dimensions. Previous studies have revealed various conceptualizations. The majority of the past research considered it encompasses trust, commitment and satisfaction (Smith, 1998; Morgan and Hunt, 1994; Crosby et al., 1990).

Morgan and Hunt (1994) regarded commitment and trust as the main variables resulting in successful

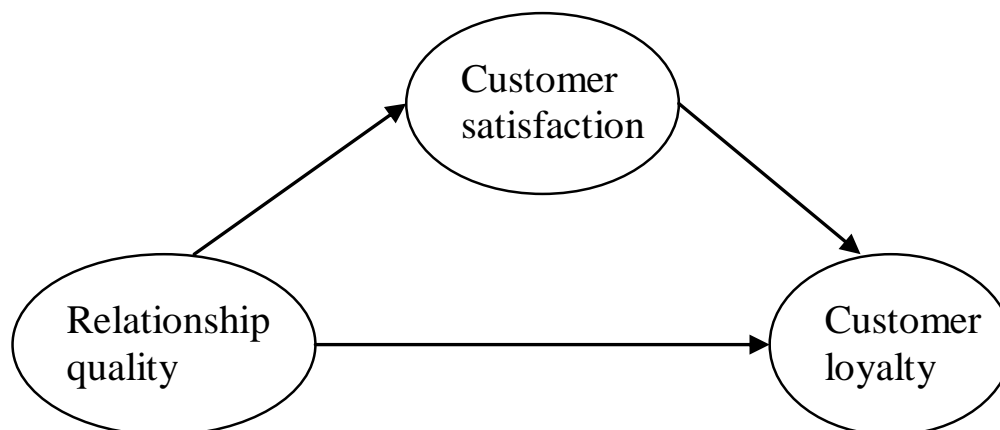


Figure 1. Hypothesized concept model.

relationship quality. Meanwhile, many researchers recognize the commitment to play the critical role in the relationship (De Wulf et al., 2001; Kumar et al., 1995).

Althanaspoulou (2009) put all the RQ variables together which has been used in the previous studies. It also created a general conceptual framework of relationship marketing and can guide researcher to develop the appropriate RQ related studies. In the framework, trust, commitment, conflict, cooperation, opportunism, power, adaptation, atmosphere, customer satisfaction and bonds are the elements of RQ.

Hennig-Thurau and Klee (1997) developed the model of customer satisfaction and relationship quality on customer retention but it did not examine the mediating effect. Previous customer retention related studies have explored satisfaction as a key determinant in customers purchasing decisions (Lemon et al., 2002).

Customer satisfaction is the consumer's fulfillment response and the degree to which the performances meet their expectations (Parsons, 2002; Wilson, 1995). In addition, Althanaspoulou (2009) suggested that further RQ related research should focus more on different types of firms to test the RQ model.

Atmosphere is also the main quality element of foodservice industry. Therefore, the relationship quality in this study has been defined as commitment, trust and atmosphere. The customer satisfaction was drawn from the relationship quality and separately became individual relationship marketing variable in the proposal model.

Recently, many RQ studies have been conducted in the hospitality industry, such as hotel, travel agent and restaurant (Hu et al., 2009; Kim and Han, 2008; Beatson et al., 2008; Sanchez et al., 2007; Moliner et al., 2006; Ling and Wang, 2006). Most of them just examine whether the data in specific hospitality firms fit the whole RQ model. Meanwhile, the RQ model is a seller-buyer

relationship and post-purchase process in marketing concept. It should not only examined the whole model but also test the casual effect, including mediating effect surely.

Using meta-analysis, Palmatier et al. (2006) asserted both relationship quality and satisfaction are customer-focused relational mediators in the relationship marketing models. It identified the antecedents as relationship benefit, seller expertise, interaction frequency and others and the outcomes as customer loyalty, worth of mount, seller objective performance, or cooperation. Based on the related RQ literature review previously, the hypotheses of this study are shown as followings:

H₁: Relationship quality will be positively related to the customer satisfaction.

H₂: Customer satisfaction will be positively related to the customer loyalty.

H₃: Relationship quality will be positively related to the customer loyalty while the customer satisfaction exists.

H₄: Relationship quality will be positively related to the customer loyalty while the customer satisfaction does not exist.

H₅: Customer satisfaction partly mediates the effect of relationship quality on the customer loyalty in the franchising beverage stores.

According to the purposes of this exploratory study, the hypothesized concept model examining consumer behaviours in franchising beverage store was presented in Figure 1. The relationship marketing and customer satisfaction are the hypothesized exogenous variables. Customer loyalty in franchising beverage store is the hypothesized endogenous variable.

Demographic variables have been studied in family food away from home, but the results of these studies

varied due to the use different consumption model, databases, and estimation techniques (Nayga and Capps, 1994). Demographic variables are the factors that can help locate the customers' behaviour within the social environment in which the seller-buyer relationship occurs. Variables such as socioeconomic class and gender affect, either directly or indirectly, relationship marketing and have been used for independent variables in marketing research (Moore and Lowndes, 1975). They might impact the acquisition of consumer learning properties. They are likely to indirectly affect consumer behaviours by affecting specific consumer. Gender and race were found related significantly to attitudes toward advertising when some researchers examined the impacts of consumer socialization variables on college students' attitude toward advertising (Bush et al., 1999).

Age or life cycle position means the individual's lifetime span when the consumer socialization takes place. It can be an index of the customer's cognitive development stage. Consumption is an ongoing process that requires the customers to make new responses or attitudes to new situation and to undertake new roles or new means of consumption. People of different ages might be influenced by environmental factors in various degrees (Brim, 1996).

H₆: There are significant differences in relationship quality, customer satisfaction and customer loyalty when examined by the levels of demographic variable and consumption patterns.

METHODOLOGY

Sample size and data collection

The population of this study was defined as the customers who purchased beverage in the stores. In order to ensure an adequate sample to conduct the analyses in this study, the sample size must be determined before data collection. In order to achieve adequate power to examine the hypothesis tests about model fit, MacCallum et al. (1996) suggested that the research would be able to determine sample size with adequate power for detecting when hypotheses are false. Therefore, the sample size of 332 for test of exact fit for selected levels of degrees of freedom ($df = 12$) is sufficient for the analyses of structural equation modeling that would result in a power of 0.50 for the model fit. The sample size of 405 exceeded this number.

In order to find the sample that can represent the population precisely, the 405 customers/subjects were drawn from the customers who finished purchasing at 49 franchising beverage stores in Taiwan. These 49 stores were chosen using proportionate stratified sampling to fulfil a precise representation of the population. The sample was comprised of customers who agreed to complete the surveys anonymously. It is desirable that subjects were chosen from stores because it showed that they went to beverage stores and were familiar with the products and services of franchising beverage stores.

A total of 49 franchising beverage stores provided the frame of this study. From the 210 in the total frame, 49 FBS were chosen. In first stratum, FBS were divided into four geographical areas. In each geographical stratum, two types of FBS that served as the second stratum were selected from the total number of beverage stores with a probability proportional to the 210 FBS. Forty-nine beverage stores were chosen according to the distribution of proportions, and the distribution in certain counties.

The subjects were recruited from FBS customers who purchased the beverage. They completed the questionnaire in the six-week survey period of 3 September 2010 to 30 November 2010. The research assistants went to the FBS chosen by the proportionate stratified sampling method. In order to complete the random sampling, they approached every second guest who finished purchasing beverage during the morning, afternoon or night time every day. These times were used in order to ensure collecting all possible segments of customers in FBS.

This study did not collect data during the breakfast time because the majority of FBS in Taiwan usually opened after 11 o'clock everyday. Every second guest was decided upon by pointing randomly at a randomly numbered table. The assistants waited for these subjects outside the FBS; therefore, asking for the permissions from FBS personnel was necessary.

Reliability and validity of measurement model

The three latent variables are the series of measurement models to develop the questionnaire. They are relationship quality, customer satisfaction and customer loyalty. In each measurement model, the measurement variables were identified by theories. Six customers in FBS were invited to participate in a pilot-test interview. They were asked to answer three open-ended questions. By using open coding, response categories were created from the data to three open-ended questions (Strauss and Corbin, 1990).

This study involved a number of steps to assess content validity. First, the questionnaire was designed based on the relevant literature in order to describe the relationship between relationship quality, customer satisfaction and loyalty theory. It is necessary to construct items to reflect the meaning associated with these concepts. Second, six experts in the field of FBS management and consumer behaviour were invited to serve as panel members to assess the content validity of the questionnaire (Carmines and Zeller, 1979).

The concept is made clear in the survey, and the experts judged whether the measures fully represented the domain. Finally, this study employed accurately the proportionate stratified sampling in order to avoid the "over sample" circumstance. For example, only one of each set of subjects can answer the questionnaire.

A pre-test of the questionnaire was conducted with 50 subjects prior to collecting the final data. They were asked to comment on the validity and readability of the questionnaire. A factor analysis with orthogonal varimax rotation was conducted for data reduction. Several modifications were made according to the subjects' suggestions and data analysis, but the overall format was not changed.

Coefficient alpha can be also derived as the expected correlation between an actual test and a hypothetical alternative form that may never be constructed (Nunnally, 1978). For assessing the internal consistency reliability, Cronbach's Alpha was calculated to examine the stability of each factor. Reliability coefficients for each factor were considered acceptable if their value was greater than or equal to 0.70 (Nunnally, 1978).

The pretest and actual test were conducted and relatively high-

Table 1. Reliability and validity analysis of measurement model.

Measurement model	Number of variables	Variance extracted (VE)	Construct reliability (CR)
Requirement		>0.5	>0.7
Relationship quality	3	0.7296	0.8891
Customer satisfaction	2	0.9083	0.9519
Customer loyalty	2	0.6737	0.8043

stability coefficients have been found consistently for both tests. These coefficients indicated the internal consistency of the study. For the pretest, the values of Cronbach's Alpha are 0.85, 0.93 and 0.71 in each part of the survey. These are similar with the coefficient alphas of the actual study; they are 0.81, 0.90, and 0.80.

In addition, to Coefficient alpha, Fornell and Larcker (1981) indicated the variance extracted (VE) can be the other index to evaluate the reliability of every measurement system. The formula is shown in Equation 1.

$$VE(\eta) = \frac{\sum_{i=1}^m \lambda_i^2}{\sum_{i=1}^m \lambda_i^2 + \sum_{i=1}^m Var(\varepsilon_i)} \tag{1}$$

This is the explanation degree of latent variable for all the measurement variables. The ratio is suggested to be at least 0.6 or larger than the value to be a good measurement system. In other word, when the VE ratio is less than 0.5 ($VE(\eta) < 0.5$), it means the variance is greater than a half of all due to the measurement error. The certainty of measurement variables should be doubtful to measure for the latent variable. There is also another formula to evaluate the reliability for the measurement system and it is construct reliability (CR). The definition of the CR is shown in Equation 2.

$$CR(\eta) = \frac{\left(\sum_{i=1}^m \lambda_i\right)^2}{\left(\sum_{i=1}^m \lambda_i\right)^2 + \sum_{i=1}^m Var(\varepsilon_i)} \tag{2}$$

In the formula, λ_i is standardized coefficient of the measurement path, and ε_i is the measurement error. The CR value of whole measurement system has been required to greater than 0.7 to account for the latent variable properly. For both reliability indicators of measurement system, the value of VE should be less than CR value ($VE(\eta) \leq CR(\eta)$).

Jackson et al. (2009) strongly recommend first evaluate the measurement model before assessing the structural model to insure the measured variables accurately reflect the latent variables (constructs or factors). Therefore, three confirmatory factor analyses were conducted to select relevant variables successfully.

In addition, it also can avoid creating a specification error which will cause incorrect estimations and inappropriate inferences. In summary, all the measurement systems met the requirement of the validity. The reliability and validity of all the variables are shown in

Table 1.

There are three latent variables in the research hypothetical model, and they include relationship quality, customer satisfaction and customer loyalty. All the reliability of three measurement systems met the requirements mentioned in the foregoing. In this study, convergent and discriminated validity were used to evaluate the correlation of every measurement variables. The relationship degree should be higher as possible to assure the convergent validity.

The standardized coefficient of the path between every two measurement variables should be at least 0.7. In the outcome model, every standardized coefficient in measurement system is higher than the value and significant as well. In addition, the correlation coefficient should not be equal to 1 in order for it to meet the discriminated validity.

Figure 2 showed the specification which involves the selection of variables for inclusion in the measurement model. Relationship quality consists of several distinct dimensions. The majority of the previous studies defined the dimensions of the relationship quality as commitment, trust and satisfaction (Athanasopoulou, 2009; Tseng, 2007; Palmatier et al., 2006).

Building on the past conceptualizations and the nature of franchising beverage store, this study defined the RQ dimensions as trust (RQ1), atmosphere (RQ2), and commitment (RQ3). In addition, there is customer satisfaction in the hypothesized concept model in this study; subjects will get confused about customer satisfaction variables and satisfaction dimension in RQ.

Customer satisfaction has been defined as a cognitive and affective reaction that emerges in response to the service encounters. The measurement of customer satisfaction has been debated in the services marketing literature.

In order to distinguish from the RQ, this study defined the customer satisfaction by using four items to measure customers' overall satisfaction with the FBS (Bitner and Hubbert, 1994). The measurement became to two-item scale to fit the whole model (SA1 and SA2).

In the present study, the intention and word-of-mouth were considered to be the dimensions of customer loyalty (LOY1 and LOY2).

There are four parts in the questionnaire. A seven-point, Likert scale (from 1 = strongly disagree to 7 = strongly agree) was used to record subjects' perception of relationship quality; their satisfaction and loyalty toward FBS. The last part of the questionnaire was designed to collect demographic data on FBS customers, and it also included four items regarding family consumption patterns. By the end of the data collection, a total of 405 customers were included in this study.

After coding and cleaning the data, the questionnaires that subjects answered for all the items on the questionnaire with same number response were abandoned. Usable responses included 355 questionnaires that eventually became available for the data analysis. Thus, the usable response rate was 12.35%.

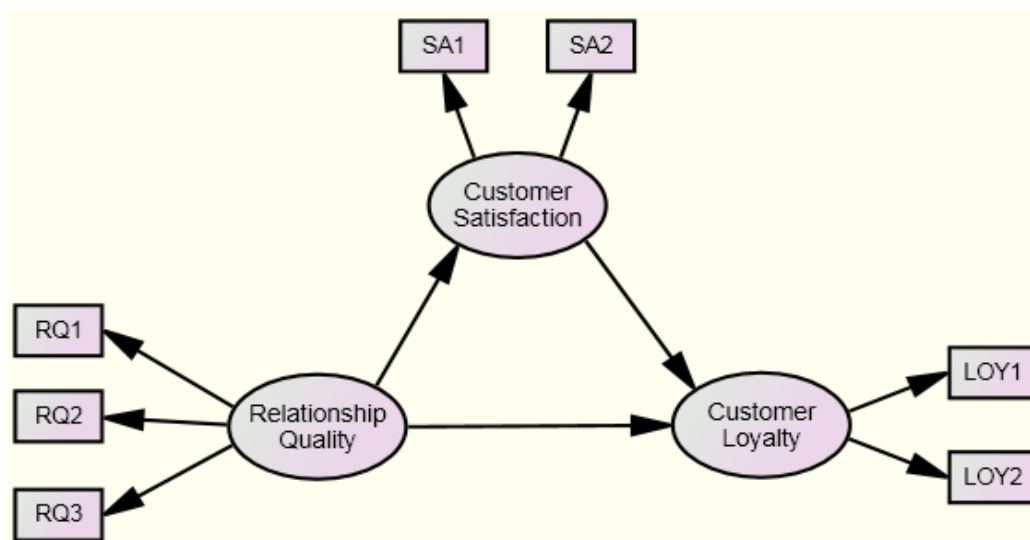


Figure 2. Hypothesized measurement model.

Data analysis

After data collection, the data was analyzed by the analysis of moment structures (AMOS) 17.0 version which is a general program to analyze a structural equation model. In addition, the Statistical Package for the Social Sciences version was used to analyse the data. Before analyzing the data and testing the hypotheses, the first step was to code the data and enter it into the computer and then clean the data.

Structural equation modelling (SEM) is a powerful statistical tool for examining the relations among constructs. Path analysis usually used a single indicator to fully represent the latent variable and it is not practical. In addition, it is necessary to assume the variables in the casual model should be measured without error and the error terms are not intercorrelated. Although, those assumptions are highly desirable in testing the causal modal, it is restrictive in nature, rare and hard to achieve in the reality (Jackson et al., 2009; Schreiber et al., 2006).

SEM is a statistical technique and can be use to reduce the number of observed variables into a smaller number of latent variables (Schreiber et al., 2006). Since all the variables in this study are not directly observable, SEM was used for data analysis. Of the 355 usable respondents, some items that were left blank were considered missing data. This study used the listwise deletion that any case with missing values was excluded from the analysis. When dealing with missing data by this method, it is less biased than using estimated missing values such as those substituted by mean or others (Roderick and Donald, 2002).

Sobel test were utilized to examine the mediating effect. Secondly, the data was checked for the normality, outliers and linearity/multicollinearity in order to conduct the structural equation modeling. Finally, the methods of analysis was used are confirmatory factor analysis, Sobel test, Bootstrapping, Baysein analysis and others. It assessed the model fit for each measurement model and final structural model by reporting the diagram of final model and modification indices. The estimation method was used to derive the parameter estimates is maximum likelihood (ML) because ML can estimate all parameters information at once (Schreiber, 2008).

RESULTS

In order to conduct the SEM, all the data was examined; the outliers and normality to do the further SEM tests for the casual relationship. The result was shown in Table 2. All modulus of Skewness are less than two and Kurtosis is less than eight. These mean all the data meet the statistical hypothesis of single variable normality. In addition, the modulus of Mardia critical ratio (29.139) is less than 63 and fit the multiple normality model and mean all the data are appropriate for the SEM test (Kline, 2010).

Model evaluation and modification

Schreiber et al. (2006) suggested that the SEM research should show the indices of model fit for each latent variable, including CN, GFI, AGFI, RMSEA, SRMR and HOELTER. Table 3 shows a summary of model fit indices for the final statistical model the modification. It also shows the specification which involves the selection of variables for inclusion in the measurement model. All measurement models met the requirement of identification, although the RMSEA was excluded with slightly higher than requirement. Figure 3 showed the final statistical model with the coefficients which were all significant.

Profile of the subjects

A profile of customers/parents of FBS is provided in Table 4. As shown in Table 3, the majority (62.4%) of

Table 2. Test of the outliers and normality.

Variable	min	max	skewness	c.r.	kurtosis	c.r.
RQ1	1.000	7.000	-0.167	-1.249	-0.382	-1.427
RQ2	1.000	7.000	-0.405	-3.025	0.172	0.642
RQ3	1.500	7.000	0.171	1.281	0.427	1.594
SA1	1.750	7.000	-0.266	-1.989	0.091	0.339
SA2	1.500	7.000	-0.217	-1.624	0.094	0.350
LOY1	1.000	7.000	-0.411	-3.073	0.084	0.312
LOY2	1.000	7.000	-0.300	-2.239	-0.111	-0.415
Multivariate					29.139	23.757

Table 3. Modification indices of Constructed model.

Fit indices	Requirements	Results
χ^2 (Chi-square) P value	P > 0.05	29.993 P = 0.002
Degree of freedom (df)		11
$\frac{\chi^2}{df}$ ratio	NC < 5 or 1 < NC < 3	2.727
Goodness of fit index (GFI)	> 0.9	0.974
Adjusted goodness of fit index (AGFI)	> 0.9	0.933
Root-mean-square error of approximation (RMSEA)	< 0.05	0.054
Standardized Root-mean-square residual (SRMR)	< 0.08 or 0.05	0.024
HOELTER	> 200	276
Tucker-Lewis index (TLI)	> 0.9	0.994
Comparative fit index (CFI)	> 0.9	0.991

customer respondents was female and 37.6% was male. Of the 355 respondents, the age group 21 to 25 accounted for about 35.8% of the customers/parents in FBS. The age groups 26 to 30 accounted for 15.5% of the sample. The age groups under 20 and over 30 years old each accounted for 26.3% and of the sample 13.8%.

In addition, the majority (82.1%) of the customers was single and 17.9% was married status. The occupation groups of students and service industry each accounted for 47.5 and 30.1% of the customers. For the education groups, the majority (57.3%) of the customers was college and 31.3% was senior high school level.

The junior high school and graduate school level each accounted for 2.4 and 9.0% of the sample. As the disposable income per month, 55.2% of the sample was less than NTD 20,000. More than NTD 30,000 and NTD 20,001 to 30,000 groups each accounted for 26.3% and of the sample 15.9%. About 37.7% of the customers purchased beverage in FBS everyday and 22.7% of the customers purchased once in one to two days.

About 11.0 and 16.7% of the customers each

purchased beverage in FBS once a week and in 3 to 5 days. The majority (38.2%) of the customers spent NTD 50 to 100 on beverage for one week.

Testing hypotheses

Table 2 provides a summary of fit indices for the final statistical model (the structural model). The path coefficients are the critical parameters for the structural equation models. Fortunately, both the path coefficients between relationship quality and customer satisfaction ($r = 0.94$; $p < 0.000$) and the coefficient between customer satisfaction and loyalty ($r = 0.52$; $p < 0.000$) are significant. The hypotheses 1 and 2 are all been accepted. In other words, there is significant relationship between relationship quality and customer satisfaction variables. In addition, the significant relationship also existed between customer satisfaction and loyalty variables.

In the final statistical model, the path coefficient between relationship quality and customer loyalty is not

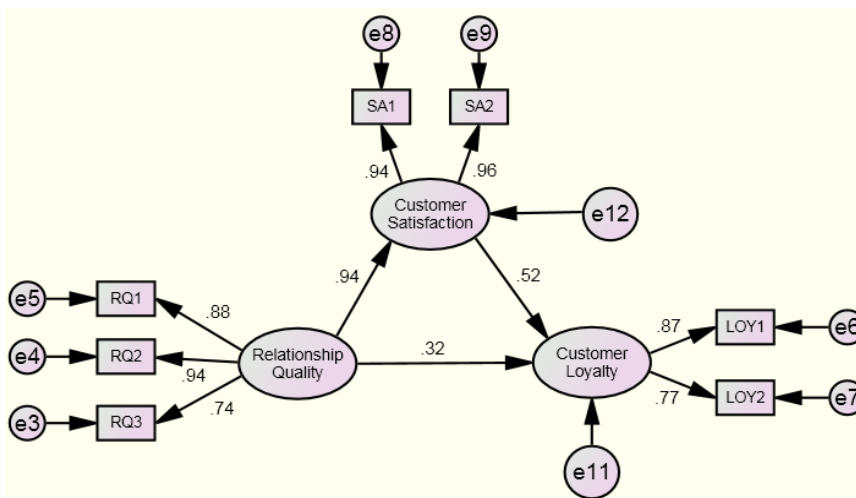


Figure 3. Final statistic model.

Table 4. Demographic characteristics of quick service restaurant customers.

	n	(%)		n	(%)
Sex			Marriage status		
Male	126	37.6	Single	275	82.1
Female	209	62.4	Married	60	17.9
Age			Purchasing frequency		
Under 20 years old	88	26.3	Everyday	133	39.7
21 – 25 years old	120	35.8	1-2 days	76	22.7
26 – 30 years old	52	15.5	3-5 days	56	16.7
Over 30 years old	46	13.8	One week	37	11.0
			More than two weeks	33	9.9
Disposable income per month ^a			Purchasing amount for one week		
Less than NTD20,000	185	55.2	Less than NTD 50	76	22.7
NTD 20,001 – 30,000	88	26.3	NTD 50 – 100	128	38.2
More than NTD 30,000	53	15.9	NTD 101 – 200	88	26.2
			More than NTD 200	43	12.8
Education			Occupation		
Junior high school or less	8	2.4	Student	159	47.5
Senior high school	105	31.3	Service industry	101	30.1
College	192	57.3	others	39	22.4
Graduate school	30	9.0			

significant ($r = 0.32$; $p > 0.05$). It means the hypothesis 3 has been rejected. This study continually examined the relationship between relationship quality and customer loyalty without the mediator variable - customer

satisfaction.

The result showed that relationship quality positively relates to the customer loyalty while the customer satisfaction does not exist. It indicated the research

Table 5. Mediation effects comparison of Sobel test, Bootstrapping and Baysien.

	Total effects (RQ→LOY)		Direct effects (RQ→LOY)		Indirect effect (RQ→SAT→LOY)	
	Standardized	Unstandardized	Standardized	Unstandardized	Standardized	Unstandardized
Sobel test	0.814	0.989	0.324	0.394	0.495	0.595
P value	0.000***		0.051		0.000*	
Bootstrap	0.814	0.989	0.324	0.394	0.490	0.595
95% C.I.	(0.835, 1.140)		(-0.182, 1.133)		(-0.020, 1.117)	
Baysein	0.810	0.994	0.330	0.405	0.480	0.589
95% C.I.	(0.867, 1.125)		(-0.008, 0.834)		(0.197, 0.979)	

***means P < 0.000 and significant; C.I. means confidence interval.

hypothesis 4 is been accepted. In summary, customer satisfaction dramatically changed the coefficient of relationship quality and customer loyalty, and the direct effect of relationship quality on customer loyalty was not significant, while the mediator existed in the research model.

In order to examine the hypothesis 5, Sobel test was used to obtain the Z value and examine the significant of indirect effect, as shown in Equation 3. Baron and Kenny (1986) indicated that the test can provide a significance test for the indirect effect of the independent variable on the dependent variable via the mediator. It also can examine more complicate models.

$$Z = \frac{ab}{\sqrt{a^2(s_1)^2 + b^2(s_2)^2}} \tag{3}$$

The value is 4.31 and greater than significant level 1.96 and significant to accept the hypothesis 5. The customer satisfaction mediates the effect of relationship quality to customer loyalty. According to the results of hypothesis 1 to 4, the indirect effect of the relationship quality on customer loyalty did exist. Although, the main effects existed between the relationship quality and customer loyalty, the significant relationship did not exist.

Darlington (1990) indicated that a variable’s total effect is the sum of its direct and indirect effects, so the indirect effects can be estimated by subtracting the value of the direct effects from the total effects. Therefore, indirect effects (0.595) on the customer loyalty were calculated by multiplying 0.913 by 0.651. In addition, the direct effect was not been found significant and indirect effect (0.595) is greater the direct effect (0.394). Those evidence resulted in the hypothesis 5 was been rejected. Customer satisfaction did mediate the effect of relationship quality on the customer loyalty.

In summary, by using the Sobel test, the result show significant value for the indirect effect of the relationship quality on customer loyalty via the mediator – customer

satisfaction. In order to judge the effect size for the entire mediating effect, proportion mediating effect was used. For this study, the proportion mediating was 30.16% (0.595/0.989 = 0.6016), a mediating effect explains about 60.16% of the total effect of an independent variable on a dependent variable. It means that 60.16% of the total effect of the relationship quality on customer loyalty was mediating by customer satisfaction.

MacKinnon et al. (2002) criticized that Sobel test had some problems with causal steps. One of the problems is lower statistical power in many common situations. Besides, the observing inconsistent results occur possibly across separate regression (Holmbeck, 2002). The other problem is that Sobel test assumed the sampling distribution of two variables are normal. In fact, the distribution of the product of two normal variables is not generally normal (MacKinnon, 2008).

At this moment, Bootstrapping and Baysein which are non-parametric method for deriving an empirical sampling distribution can be used to get sampling distribution of two latent variables. In addition, it can calculate the asymmetric confidence intervals for two variables using the exact distribution of the product of two normal variables. The upper bound and lower bound confidence intervals have same signs, interpreting the significant result of the mediating effect. The comparison results of three methods are shown in Table 5. The results of three methods are similar.

The Bootstrapping, and Baysein estimations were additional been used to examine the mediation effects by getting the Asymmetric confidence intervals for every estimated parameters. If both upper and lower bounds of confidence intervals fall outside the (1-α) percent confidence interval, then reject the hypothesis at the certain α level.

Both results of Bootstrapping and Baysein showed all upper and lower bounds of confidence intervals are positive and fall outside the 95% confidence interval, except for the direct effect. According to the P value and the upper and lower confidence intervals, the total effects

and indirect effects are all significant, while the direct effect is not. Once again, these proved the hypothesis 5 is significant under the higher statistical power (MacKinnon, 2008). With different statistical methods, the customer satisfaction was consistently approved to mediate the effect of relationship quality to customer loyalty.

As with hypotheses 6, multi-group analyses were conducted to examine the research models across different consumption patterns and demographic segments, respectively. The results partially accepted the hypothesis 6 and showed that the research models are vary across different consumption patterns demographic segments, such as age, income and occupation ($p = 0.000$; $p = 0.001$; $p = 0.008$; and $p = 0.0000$).

DISCUSSION

The results indicate that relationship quality did impact on customer loyalty regarding effectiveness of relationship marketing. All hypotheses support the key role played by relationship quality as a variable generating customer satisfaction which in turn affects the customer loyalty. Among its main determinants, we have found a significant and positive effect of relationship quality on customer loyalty.

In addition, relationship quality causes customer satisfaction in franchising beverage store. In other words, the customer satisfaction can predict relationship quality. The general managers of FBS can take advantage of this to know and control the all the service quality of franchisees. The relationship quality has significant positive effects on loyalty across all types of goods/services. Thus, a higher level of relationship quality leads to a higher level of loyalty.

According to the significant mediation effect, another major finding in this study showed that customer satisfaction plays a mediated role between relationship marketing and customer loyalty. Mediation effect implies a causal relationship whereby the relationship quality causes a satisfaction which causes customers' loyalty in FBS.

Customer satisfaction mediates the relationship between relationship quality and customer loyalty. Customer satisfaction explains "how" and "why" relationship marketing predicts customer loyalty in FBS. When faced with customer satisfaction level, the effects described in the previous relationships between RQ and loyalty is even stronger. These results highlight the relevance of framing the study of customer loyalty in a context of high relationship quality, due to the higher effects found when taking customer satisfaction variable into account.

There was support for the ideas that customer

satisfaction mediated between relationship quality variable and customer satisfaction variables. Relationship quality had both direct and indirect effects on customer loyalty. While the mediator which is satisfaction came into the model, the indirect effects significantly impact on the customer loyalty but the direct effect became not significant. It results in the indirect effect is greater than total effect. In other words, the strength of relationship quality and customer loyalty decreased while customer satisfaction came into the model.

Customers with greater satisfaction have better loyalty toward FBS which can be caused or predicted by their perceived relationship quality. The service in hospitality is in need of improvement and updating in understanding customer satisfaction. Once they do not like the products or services, these might result, due to the fact that they think the FBS is useless and then discard it.

There are many methods to evaluate and obtain the customer satisfaction. This study measured customer satisfaction by asking some 7-points scale questions. The further should try different way of satisfaction measurements in order to make sure the validity, even though this study asserted the good validity by using convergent and discriminated validity.

This study contributes to the casual marketing relationship suggesting the ways to build long-term relationship with customers in a service environment which is difference from the previous, including information about the nature of hospitality service and the relationship among relationship quality, customer satisfaction and loyalty.

In addition, it determines which relationship quality strategies lead to higher customer satisfaction and loyalty in different customer segments. Moreover, the majority of previous studies usually proposed the relationship quality as the antecedent variable in the relationship marketing model. The measurements of mediated effects by three different statistical methods in this study pioneer for the future research.

Demographic variables have been studies in family food away from home, but the results of these studies varied due to the use different consumption model, databases, or estimation techniques (Nayga and Capps, 1994). Not surprisingly, the results show that the whole model effects vary across different demographic groups, such as age, disposable income, occupation, and consumption patterns in FBS.

The results show that different income level families did have significantly different customer loyalty toward relationship quality. It suggested household disposable income was a factor accounting for variations of customer loyalty. This suggested household disposable income was a factor accounting for model variations of relationship marketing. Other research has shown similar factor

to be important in customer consumption behaviours.

Nayga and Capps (1994) indicated that eating away from home in fast food facilities depended on income level. Cai (1998) also found household income was a significant and positive factor accounting for variations of family vacation food expenditure. Hiemstra and Kim (1995) also indicated income as an important factor affecting expenditures of food away from home. It suggested companies should take the income profile of their target market into consideration in order to design their appropriate services and products fitting customers' needs and wants.

The results show that different marriage status, education and age groups did not have significantly different customer loyalty toward relationship quality. No significant differences were found between different levels of customer segments which divided by these three variables. At this circumstance, it suggested FBS might not separately consider all these variables while they plan the strategic marketing plans or targeting their market in order to increase sales and repeat business.

MANAGERIAL IMPLICATIONS

This study is of prime utility for relationship marketing management, for it helps operators of franchising beverage stores to understand the variables that contribute to generating customer loyalty among their customers and thus to manage their relationship regulations to maximize their profits in the long term. Some managerial implications and suggestions were shown as follows.

First, the results surprisingly showed that all three dimension of relationship quality significantly represented the latent variable-relationship quality, including trust, commitment and atmosphere. It means customers regarded the atmosphere as one of the important roles of relationship quality in FBS.

Atmosphere is highly professional and associated with a high degree of relationship quality, consumers can be certain of their quality and value even from ex post experience in FBS. Customers can maintain more effective loyalty through customer satisfaction by using atmosphere strategies than others. They evaluated such products in beverage stores according to how comfortable atmosphere the FBS created; even most of the beverage stores are off-premise foodservice industry.

If FBS can enhance relationship quality while adopting good atmosphere strategies, customers can develop customer loyalty. Beside, the trust and commitment are also the essential elements led to customer satisfaction and develop higher loyalty. Thus, it is important for FBS design tangible and intangible products and service using variety strategies to maintain good

relationship quality so as to win loyalty from customers.

Second, the customer loyalty can predict relationship quality and must be via customer satisfaction. Conversely, adopting relationship quality strategies can maintain good customer satisfaction with customers and inspire their strong loyalty. Consumers usually cannot judge the performance of experience and credence goods/services easily, but it is easy to know their loyalty by simply read the number of their repeat purchase.

The general managers of FBS can take advantage of the casual relationship to know and control all the service quality of franchisees. Under this mediated model, the FBS manager can also put much more efforts on customer satisfaction because RQ will impact customer loyalty through satisfaction. If FBS managers can have favourable repeated interactions with customers to reduce their apprehension and assure satisfaction, they will trust and be satisfied with the FBS and maintain long-term relationships with FBS.

Furthermore, FBS manager should request their customers to provide personal data that show their personal preferences before purchasing. Thus, FBS can offer valuable solutions to clients according to their preferences and needs.

Finally, relationship quality had a positive effect on customer satisfaction and loyalty. Moreover, the unique and specific dimensions of relationship quality in hospitality industry would have a greater impact on customer satisfaction and loyalty in franchising beverage stores which is different from the previous studies.

If FBS can maintain the unique relationship quality with customers, they could enhance the latter's long-term loyalty. This study suggests that FBS should adopt different relationship quality strategies according to the nature and differences of the franchising beverage stores.

RESEARCH LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The limitations of this study provide some directions for further research. Even though this study employed a relatively effective sampling methods and sufficient sample size met the requirements for the analyses, as with any study in social science, the sample and the design still may limit the generalizability of the findings drawn from this study.

Generalizability of the findings should be done cautiously and cannot be generalized to whole population until results are replicated. On the other hand, while the level of effects may not be generalizable to other kinds of foodservice industry such as full service restaurants, this study would argue that the structure of relationships among variables as hypothesized should be.

The dimensions of relationship quality include most of the commitment, trust and satisfaction. In addition, some previous put RQ and customer satisfaction in the RM model in the same time. Since one of the RQ dimensions is satisfaction, the common method variation (CMV) problem will occur between RQ and satisfaction. Previous studies collected data at the same time and it was difficult for subjects to distinguish those two variables.

In other words, the subjects will confuse about the satisfaction in RQ and customer satisfaction. Therefore, the potentially differential variables in hospitality industry should be selected and examined in the RQ mode while selecting customer satisfaction in the model.

The nature of hospitality industry is unique and different from other industries; the further studies should develop the specific dimension of relationship quality for the industry. To date, marketing research that is interested in hospitality and cultural per se is relatively rare. Thus, cultural characteristics of customers and sellers are also recommended for the further dyad studies of relationship marketing.

Incorporating relationship marketing theory into assessments of the research RM model industry in future studies may lead to models that offer more insight into the development of new model for hospitality industry. The goal of future research should be to build upon this description and delineate processes of the model, or causes and effects, inherent in different types of hospitality firms and subjects. Such an effort should include identifying longitudinal relationships of seller-buyer and consequences of consumptions patterns.

The concept relationship marketing theory has been applied to the development of relationship quality, customer attitudes and behaviour (Athanasopoulou, 2009; Palmatier et al., 2006). Due to the difficulty of collecting the data of seller side associated with dyad studies, most of the previous studies were on the buyer side. Even there are some difficulties associated with dyad studies, they should be analysed to examine the extension validity of the RQ model.

There are many relationship marketing related variables and models. The further studies can compare differences variables which selected in the difference model by using model comparison technology in order to find the appropriate models which are suitable to the specific industry, such as hospitality.

Finally, these results were acquired from the subjects living in Taiwan and likely were prejudiced against FBS because of belief, dining culture and values systems that may or may not be eccentric to other countries. There might be some other demographic variables or parental communication styles moderate the impact of parents on family consumption patterns.

Further research can find other secondary data including what this study has missed to make the sample

more representative.

SUMMARY AND CONCLUSION

Based on the results, some practical implications are suggested for the marketing practitioners. It is essential to understand the customer consumption patterns and decision-making of the target market. Many variables affect customer loyalty and decision-making in relationship marketing model. Unlike other RM related studies, this study found the mediation effects among the variables.

The meditational process represents customer satisfaction as a mediator of the relationship between quality and customer loyalty. It would be an alternative explanation of an implicated result showing that thoughts about the customer satisfaction was a mediator of relationship quality influence the change of customer loyalty.

In other words, customer satisfaction is responsible for the influence of the relationship quality on the customer loyalty. This result would provide the evidence that we certainly need to fully take the customer satisfaction into account during explanation of relationship quality influence on customer loyalty.

Moreover, most of the effect of customer loyalty can be attributed to the mediating role played by the customer satisfaction. Although, not large, this finding is notable, as this opens up for new consideration the likelihood that customer satisfaction may function in a mediating capacity under franchising beverage store circumstances that are yet to be recognized.

The results demonstrate the complex nature of relationship quality in FBS. These findings build on relationship quality that may help clarify the processes through customer satisfaction toward loyalty. Given the results of these effects in FBS, the FBS operators might think about understanding the casual relationship among the relationship marketing related variable. For example, to increasing the customer loyalty, the service industry should not only make efforts on modifying or increasing customer satisfaction for FBS business but also changing relationship quality in FBS.

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