

“Word of Mouth” in the Chain Restaurant Industry

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체인 레스토랑 산업에서 고객의 ‘구전 효과’ 형성에 관한 연구

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Abstract

The study investigated how 'word of mouth' originates in the chain restaurant industry. It has long been acknowledged that 'word of mouth' is a critical factor for the success of a restaurant business due to its targetability and cost effectiveness. A review of the literature revealed four antecedents of 'word of mouth': service quality, perceived value, satisfaction, and relationship quality. Based on the theoretical/empirical relationships between those constructs, a structural model composed of the hypotheses was proposed. The structural model was tested with data collected from 471 chain restaurant patrons. The structural equation modeling analysis revealed that five constructs in the proposed model are interrelated, and during this process, word of mouth is formed in the chain restaurant industry. A positive relationship between service quality and satisfaction (0.265, $p < 0.05$), service quality and perceived value (0.831, $p < 0.05$), service quality and relationship quality (0.465, $p < 0.05$), and service quality and WOM (0.263, $p < 0.05$) were found, indicating that service quality is a key prerequisite for word of mouth and other constructs proposed in the model. It was revealed that perceived value does not have a direct impact on WOM formation ($t = 1.275$, $p = 0.202$), but a positive relationship between perceived value and satisfaction (0.293, $p < 0.05$) and between satisfaction and WOM (0.627, $p < 0.05$) were found. Therefore, it was concluded that patrons' perceived value influences word of mouth formation, but that impact is mediated by satisfaction. During this process, relationship quality also plays a mediating role in generating word of mouth. Based on data analysis, theoretical/managerial implications are discussed.

Key words : Word of mouth, service quality, perceived value, satisfaction, relationship quality, chain restaurant.

INTRODUCTION

Word of Mouth (WOM) is the extent to which a customer would and does recommend a company's products to others (Berger *et al* 2006). A number of studies have discussed the importance of WOM, defined as customers' willingness to recommend and make referrals, due to the widely recognized belief that WOM is the most important method of obtaining new customers (Raymond & Tanner 1994). Jones & Sasser's (1995) research showed that companies generally achieve approximately 60% of their new customers via WOM. Moreover, WOM marketing (referral reward program) helps to improve customer retention by rewarding existing customers (Ryu & Feick 2007).

For the reasons mentioned above, a good number of companies across sectors of industries have adapted different types of WOM marketing tactics. For example, automobile companies (Honda motors, Toyota motors, Hanmar motors), airline companies (United Airlines), and hotel companies (Westin, Caesar's Pocomo Resort) actively use WOM marketing programs in order to attract new customers and enhance existing customers' retention rate (Ryu & Feick 2007). These companies try to soothe customer complaints, thus enhancing perceived service quality and customer satisfaction, try to build high level of relationship quality with their customers, and then, ultimately, try to create positive WOM (Blodgett *et al* 1997). Previous researchers (e.g. Anderson EW 1998, Chevalier & Mayzlin 2006, Gremler *et al* 2001, Mummert H 2000) forecasted that such WOM marketing tactics will be more emphasized and practically adapted by companies in the future, be-

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cause of their targetability and cost effectiveness compared with other traditional marketing strategies.

Chain restaurant industry is not an exception in this regard. A chain restaurant is a set of related restaurants with the same brand name in many different locations (Wikipedia 2008). Chain restaurants operate under the same brand name; therefore, positive/negative WOM more critically influence all the restaurant branches' image/revenue/success. In the respect, many chain restaurant brands try to build positive WOM in various ways. For example, in order to create positive WOM, chain restaurants intend to improve service quality (Dutta *et al* 2007), patrons' dining satisfaction (Susskind AM 2002), their perceptions towards a value (Ha & Jang 2010), and relationship quality (Hyun S 2009). However, little study has examined how these investments are related to actual WOM formation, nor has theoretical/empirical research examined how WOM is created in the chain restaurant industry. The restaurant industry lags behind other industries in terms of WOM/referral research. Herein, the present study aims to develop and test a model of WOM formation utilized for the chain restaurant industry.

This study seeks to identify key determinants of WOM formation in the chain restaurant industry, while examining possible relationships among those determinants.

HYPOTHESES DEVELOPMENT

1. Word of Mouth

Word of Mouth (WOM) is defined as a "customer's willingness to recommend and make referrals" (Raymond & Tanner 1994). The theoretical background of WOM is the social exchange theory (Frenzen & Nakamoto 1993, Gatignon & Robertson 1986, Ryu & Feick 2007). Customers/patrons receive a good service/value, thus satisfied with the company. Then, as a reward, they say good things about the company to other people (Dichter E 1966). This is how social exchange theory explains the relationships between 'give' (WOM) and 'take' (good service, satisfaction, good relationship quality) (Emerson RM 1976). In contrast, customers/patrons who received a bad service or unsatisfactory service would reduce post-purchase anxiety or dissonance by talking about their bad experiences with the company (Arndt J 1967, Gatignon & Robertson 1986).

It is commonly argued that WOM plays a critical role in

shaping consumers' attitudes and behaviors. According to Brown & Reingen (1987), WOM is seven times more effective than newspaper and magazine advertising, four times more effective than personal selling, and twice as effective as radio advertising. Moreover, WOM bears a positive impact on sales and thus related to the shareholder value of a company (Chevalier & Mayzlin 2006). In this sense, investigating antecedents of WOM bears great importance in consumer behavior research.

2. Service Quality

Previous studies have suggested that WOM is highly influenced by patrons' perceived service quality (Harrison-Walker LJ 2001, Tanner JF 1996). Service quality is conceptualized as a customers' attitude towards perceived performance of specific dimensions of a service (Cohen *et al* 1972, Cronin & Taylor 1992). According to the social exchange theory, such attitudes towards service dimensions create positive/negative WOM (Boulding *et al* 1993). In this sense, theoretically, there should be a causal relationship between service quality and WOM formation process.

Theoretical relationship between service quality and WOM was empirically tested. Harrison & Walker (2001) examined the relationship between service quality and customers' WOM with data collected from 471 customers. Based on structural equation modeling, they found that service quality influences WOM significantly and positively. Based on these theoretical/empirical backgrounds, following hypothesis was proposed:

Hypothesis: Service quality influences WOM positively in the chain restaurant industry.

3. Perceived Value

Previous studies (Hartline & Jones 1996, Lin *et al* 2005) also postulated that perceived value is an antecedent of WOM. Perceived value is defined as the customer's objective assessment of the utility based on perceptions of what is given up for what is received (Rust *et al* 2000). As a customer places higher value with regard to the service that he/she experienced, the more likely the customer spreads positive WOM (Swan & Oliver 1989). Zeithaml VA (1988) provided a seminal work for understanding a customer's perception of a value. According to his argument, value is composed of four dimensions: (1) low price, (2) whatever I want in a product, (3) the quality

I get for the price I pay, and (4) what I get for what I give up, including time and effort. These components are relevant to the social exchange theory: customers compare what I received with what I paid, then take relevant actions (WOM).

The theoretical relationship between perceived value and WOM was empirically tested. Hartline & Jones (1996) empirically tested the causal relationship between perceived value and WOM. They distributed questionnaires to hotel guests, and collected 1,251 usable responses. According to their structural equation modeling, hotel guests' perceived value influences WOM formation significantly ($0.555, p < 0.05$). Extending their findings, Ha & Jang (2010) investigated the relationship between perceived value and WOM in the restaurant industry. Based on the data collected from 607 dining patrons in U.S., they found that perceived value is a key determinant of WOM in the restaurant industry. Furthermore, Hartline & Jones's (1996) study also showed that service quality influences perceived value of customers ($0.395 < 0.05$) significantly and positively. The above-mentioned studies suggest the following two hypotheses in respect to the relationships between perceived value and WOM.

Hypothesis: Perceived value influences WOM positively in the chain restaurant industry.

Hypothesis: Service quality influences perceived value positively in the chain restaurant industry.

4. Satisfaction

For many years, it has been strongly believed that customer satisfaction is a key determinant for WOM (Ha & Jang 2010, Jones *et al* 2006, Oliver RL 1980, Reichheld & Sasser 1990). Theoretically, customer satisfaction incorporates judgements and reactions towards what the customers received from the service (Mano & Oliver 1993, Oliver RL 1992). Consequently, satisfied customers tend to produce positive WOM. In contrast, unsatisfied customers would result in negative WOM (Westbrook & Oliver 1991). Based on this theoretical argument, the following hypothesis is therefore proposed:

Hypothesis: Satisfaction influences WOM positively in the chain restaurant industry.

In addition to the relationship between satisfaction and WOM, large numbers of studies postulated the causal relationship

between perceived value and satisfaction (Babin *et al* 1994, Day & Crask 2000, Jones *et al* 2006, McDougall & Levesque 2000). Satisfaction is created in a customers' mind through positive perceptions of value regarding products or services. For this reason, conceptually, perceived value of customers would be a factor which influences satisfaction.

Empirical studies further support this argument. For example, Babin *et al's* (1994) study analyzed data collected from 404 adult residents of a large midwestern community consumers representing potential respondents of a regional shopping mall's demographic profile. Based on data analysis, they found high correlation between perceived value and customer satisfaction. Extending their research, Jones *et al* (2006) examined the relationship between perceived value and customer satisfaction with data collected from 245 shopping customers in retailing industry. They found the positive impact of perceived value on customer satisfaction. The following hypothesis is therefore proposed regarding the relationship between perceived value and customer satisfaction in the chain restaurant industry:

Hypothesis: Perceived value influences patrons' satisfaction positively in the chain restaurant industry.

Previous studies further suggest that service quality is an important antecedent of customer satisfaction (Oh H 1999, Spreng & Mackoy 1996). Actually, it is strongly believed that service quality is a key determinant for customer satisfaction, revisit intentions, customer loyalty, and company profitability (Taylor & Baker 1994). Spreng & Mackoy's (1996) study empirically tested the relationship between service quality and satisfaction with data collected from 273 students in an undergraduate marketing class. They showed a positive relationship between the two constructs ($0.490, p < 0.05$). Similarly, Taylor & Baker (1994) examined the relationships between service quality and relevant satisfaction with the data collected from 426 consumers in seven cities geographically dispersed throughout the United States. They also found that service quality directly influences satisfaction. Extending their research, Oh H (1999) tested same relationship in the hotel segment, and also found a significant relationship between service quality and satisfaction of guests. In the restaurant segment, Brady & Robertson (2001) tested the relationship between service quality and satisfaction in order to examine whether service quality is

universally an antecedent of satisfaction or whether the causal order is context-specific. By analyzing 309 restaurant patrons' data collected from two different cultural regions-United States and Ecuador. They found that service quality is an antecedent of satisfaction across cultures. Therefore, service quality should be a determinant of satisfaction, which leads us to the following hypothesis:

Hypothesis: Service quality influences patrons' satisfaction positively in the chain restaurant industry.

5. Relationship Quality

Jarvelin & Lehtinen (1996) defined relationship quality as customer's perceptions of how well the relationship with a service provider fulfills his/her expectations, predictions, goals, and desires. Practically, relationship quality reflects the degree a customer trust a service provider/company, thus rely on its integrity (Crosby *et al* 1990). Strong relationship quality signifies that the customer has been satisfied with the perceived service quality/value, thus trusts the service provider's future performance, and eager to maintain the relationship (Roberts *et al* 2003). In this sense, for many years, the concept of relationship quality has been a key mediator between service marketing constructs in the relationship marketing literature.

Research has been conducted to examine the antecedents and consequences of relationship quality. Hyun S's (2009) study found that the service quality is a key indicator of relationship quality in the chain restaurant industry. He analyzed 208 patrons' behaviors and revealed that patrons' perceived service quality influences relationship quality positively. Furthermore, goal and action identification theories (Carve & Scheier 1990, Vallacher & Wegner 1987) support that customer's perceived value is higher level goal, while relationship quality is lower level goal. According to this theory, high level goal (perceived value) influences low level goal (relationship quality). Therefore, theoretically, perceived value is an antecedent of relationship quality. Empirical studies (Sirdeshmukh *et al* 2002) further support this relationship. Sirdeshmukh *et al* (2002) investigated the relationship between perceived value and relationship quality with empirical database. They collect data from the retail clothing and airline industries' customers, and their data analysis revealed that perceived value of customers influences relationship quality between a seller and a buyer. The following three hypotheses are therefore proposed re-

garding the relationship between antecedents and relationship quality in the chain restaurant industry:

Hypothesis: Service quality influences relationship quality positively in the chain restaurant industry.

Hypothesis: Perceived value influences relationship quality positively in the chain restaurant industry.

Hypothesis: Satisfaction influences relationship quality positively in the chain restaurant industry.

Lastly, previous studies have showed that the consequence of relationship quality is WOM. Researchers theorized that relationship quality closely forecast customers' WOM (Gremler *et al* 2001). Based on this theoretical background, Kim *et al* (2001) hypothesized the relationship between two constructs. By examining data collected from hotel guests, they found that a company's relationship marketing activities can enhance relationship quality between customers and the firm, consequently creating customers' willingness to recommend. Based on theoretical and empirical background, the last hypothesis is derived:

Hypothesis: Relationship quality influences WOM positively in the chain restaurant industry.

In summary, to investigate the antecedents of WOM, thorough literature review has been conducted. Based on theoretical/empirical backgrounds, four constructs influencing WOM formation were derived and their causal relationships were developed. The next section of this study will test the hypothesized relationships with collected data in the chain restaurant industry.

6. Proposed Model and Hypotheses

Integrating the previous literature, this research proposed a structural model of WOM formation in the chain restaurant industry (Fig. 1). Ten hypotheses were developed.

H1: Service quality positively influences patrons' satisfaction in the chain restaurant industry.

H2: Service quality positively influences perceived value in the chain restaurant industry.

H3: Perceived value positively influences patrons' satisfaction in the chain restaurant industry.

H4: Service quality positively influences WOM in the chain

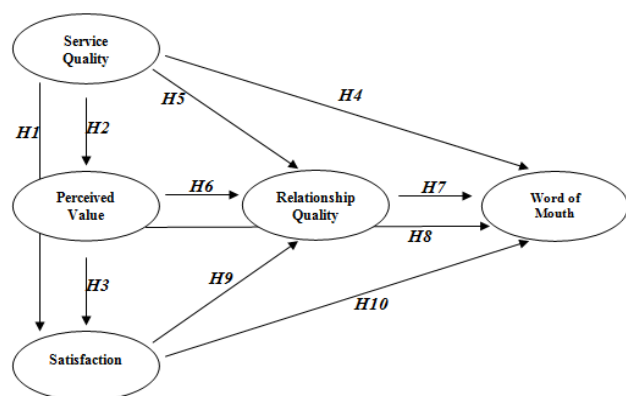


Fig. 1. Proposed model of WOM formation in the chain restaurant industry.

restaurant industry.

H5: Service quality positively influences relationship quality in the chain restaurant industry.

H6: Perceived value positively influences relationship quality in the chain restaurant industry.

H7: Relationship quality positively influences WOM in the chain restaurant industry.

H8: Perceived value positively influences WOM in the chain restaurant industry.

H9: Satisfaction positively influences relationship quality in the chain restaurant industry.

H10: Satisfaction positively influences WOM in the chain restaurant industry.

METHODOLOGY

1. Sample and Data Collection

A self-administered questionnaire was distributed to 3,134 chain restaurant patrons in United States by an online market research company in May of 2009. The 3,134 patrons live in all over the United States, thus represent whole population of United States. This research company invites the population to take the on-line survey, and provide incentives when the respondents complete the survey. From the 3,134 questionnaires distributed, 371 usable responses were collected, for a usable response rate of 11.84%. Table 1 shows the respondents' demographic profile.

Among the respondents, 45.3 percent were female and 54.7 percent were male. In terms of age, the respondents were fairly evenly distributed from 18 to 87 years old; the mean age was 45.7 years. The majority of respondents were Cauca-

Table 1. Sociodemographic profile of respondents

Variables	Frequency (N=371)	Percent (%)
Sex		
Female	168	45.3
Male	203	54.7
Income		
under US \$ 25,000	72	19.4
US \$ 25,500 ~ 39,999	85	22.9
US\$ 40,000 ~ 54,999	68	18.3
US\$ 55,000 ~ 69,999	58	15.6
US\$ 70,000 ~ 84,999	33	8.9
US\$ 85,500 ~ 99,999	22	5.9
US\$ 100,000 ~ 149,999	23	6.2
US\$ 150,000 and over	10	2.7
Race		
Caucasian/White	314	84.6
African-American	16	4.3
Asian	15	4.0
Hispanic	19	5.1
Other	7	1.9
Education level		
Less than high school degree	10	2.7
High school degree	56	15.1
Some college, but no degree	136	36.7
Bachelor's degree	111	29.9
Graduate degree	58	15.8
Mean age = 45.69±17.85		

sian (84.6%), and over half of the respondents had bachelors or graduate degrees (29.9% for the former and 36.7% for the latter). About income, the respondents were fairly evenly distributed, with the largest group (22.9%) reporting an income between \$ 25,000 and \$ 39,999 and the smallest group (2.7%) reporting an income of \$ 150,000 or more; 57.7% reported incomes higher than \$ 40,000.

2. Measures

To measure the constructs in our proposed model, validated scales from the literature were adapted to the food-service

setting as follows:

Service quality was measured with 22 items developed by Cronin & Taylor (1994); Perceived value was measured with eight items developed by Rust *et al* (2000); Satisfaction was measured with three items drawn from Hennig-Thurau *et al* (2002) and Oliver RL (1980); Relationship quality was measured with eight items developed by Rust *et al* (2000); Word of Mouth was measured with relationship quality was measured with 13 items developed by Harrison-Walker LJ (2001);

The initial items were adapted from the previous literature, then the items were modified after a pre-test with sixteen faculty members. All items were assessed on five-point Likert-type scales ranging from 1 ('strongly disagree') to 5 ('strongly agree').

3. Measurement Refinement and Pilot Survey

Measurement items were adapted from previous literature, but they were developed based on general marketing context, thus some of them are not relevant in the restaurant industry. For this reason, scale purification processes were conducted. First, sixteen faculty members majoring in restaurant operation, marketing, and consumer behavior reviewed the initial measurement items, and revised/deleted some of the items so they would fit into the restaurant industry. This is the qualitative approach that is widely accepted for scale purification (Hinkin *et al* 1997). Based on the faculty members' advices, items were revised. Second, a focus group interview was conducted with three patrons in the chain restaurant industry who had indicated high familiarity with chain restaurants. The initial items were reviewed question by question, and the focus group process was audio-taped. The measurement items were re-worded accordingly, so the adapted measure is more realistic and closely describes operation in the restaurant industry. This approach is also widely accepted in scale purification process by previous studies (Zikmund W 2003). Third, a pre-test was conducted with two faculty members and eight graduate students in a university in United States majoring in research methodology, restaurant marketing, and consumer behavior. Through these processes, some items were deleted, and some of them were re-worded, so they are more relevant to the restaurant industry. After these item purification processes, the survey questionnaire was completed, then distributed to 3,134 patrons in the chain restaurant industry.

FINDINGS

1. Exploratory Factor Analysis

Service quality is a multi-dimensional construct (Cronin & Taylor 1994). Therefore, to find underlying structure of service quality in the chain restaurant segment, exploratory factor analysis with principal component extraction and varimax rotation was conducted. KMO value was 0.879, thus achieved acceptable sampling adequacy for factor analysis. Three dimensions whose eigenvalues are higher than 1.0 were factored from the data set: responsiveness, tangibles, and reliability. These three dimensions explained 67.3% of total variance, which is acceptable in the social science (Hair *et al* 1998). Cronbach alpha was used to examine the internal consistency of the three dimensions. Three dimensions' Cronbach's alpha coefficients were 0.862 (responsiveness), 880 (tangibles), and 0.776 (reliability), thus greater than 0.70, meeting or exceeding the threshold value suggested by Hair *et al* (1998).

2. Confirmatory Factor Analysis

To ensure the uni-dimensionality of the scales measuring each construct and validate the measurement model, a confirmatory factor analysis (CFA) was conducted. Before testing the overall measurement model, the uni-dimensionality of each construct was examined one by one (Sethi & King 1994), and unacceptable items were eliminated. Table 2 shows the remaining items.

CFA results showed a good model fit. The CFA Chi-square was 935.350 (χ^2/df ratio=2.81). CFI=0.912, IFI=0.913, TLI=0.901 and a root mean square error of approximation (RMSEA)=0.070.

The convergent validity of the scales was tested using confirmatory factor analysis (Anderson & Gerbing 1988). All factor loadings were equal to or greater than 0.471 and significant at $p < 0.001$ (with the t -values, not shown, ranging from 8.117 to 31.698). As shown in Table 3, all constructs' average variance extracted (AVE) values were greater than the 0.50 cutoff (Bagozzi & Yi 1988). Based on high factor loadings and AVE estimates, convergent validity for the measurement-scale items was achieved (Fornell & Larcker 1981).

In order to achieve discriminant validity, the squared correlation (R^2) between a pair of constructs should be lower than the AVE for each construct (Fornell & Larcker 1981). All of the squared correlations (R^2) between a pair of constructs were lower than the AVE for each construct except two pairs:

Table 2. Confirmatory factor analysis: items and loadings

Construct and scale item	Standardized loading
Service quality	
Responsiveness	
The chain restaurant does not have my best interests at heart.	0.596
Employees of the chain restaurant are not always willing to help customers.	0.644
Employees of the chain restaurant do not know what my needs are.	0.851
I do not receive prompt service from the chain restaurant's employees.	0.905
Employees of the chain restaurant are too busy to respond to customer requests promptly.	0.678
Tangibles	
The chain restaurant is consistent in its food quality.	0.943
The chain restaurant has a nicely decorated environment (e.g. decoration, painting).	0.945
The chain restaurant has comfortable seating.	0.710
The chain restaurant's has visually appealing ambiance.	0.595
Reliability	
When I have problems with its food, the chain restaurant's managerial staff is sympathetic and reassuring.	0.689
When the chain restaurant promises to do something by a certain time, it does so.	0.865
The chain restaurant has dependable service.	0.683
Employees of the chain restaurant are polite.	0.471
Perceived value	
I think the overall food quality of the chain restaurant is high.	0.547
I think that the food quality of the chain restaurant is worth the price paid.	0.595
I think the price of the chain restaurant is competitive with other restaurants.	0.857
The chain restaurant is located in convenient locations.	0.846
Satisfaction	
Considering all my experiences with the restaurant, my choice to dine out at the chain restaurant has been a wise one.	0.841
Overall, I am satisfied with the chain restaurant.	0.874
Relationship quality	
I often feel that I receive preferential treatment from the chain restaurant.	0.739
I often feel that I am treated as being special in the chain restaurant.	0.567
When I go to the chain restaurant, I often feel a sense of community.	0.888
I am familiar with the chain restaurant's accommodations	0.857
Word of mouth	
I suggest the chain restaurant to my friends/relatives.	0.752
I suggest the chain restaurant to others quite frequently.	0.883
I suggest the chain restaurant to people more than other restaurants.	0.841
When I tell others about the chain restaurant, I tend to talk in great detail.	0.750
Once I get talking about the chain restaurant, it is hard for me to stop.	0.753

Note: All factors loadings are significant at $p < 0.001$. Bold figures represent Cronbach's alpha.

Table 3. Descriptive statistics and pairwise correlations

	No. of items	Mean	SD	Composite reliability	AVE	(1)	(2)	(3)	(4)	(5)
(1) Service quality	13	3.49	0.59	0.954	0.56	1.00				
(2) Perceived value	4	3.50	0.72	0.846	0.53	0.831 (0.691)	1.00			
(3) Satisfaction	2	2.34	0.99	0.734	0.74	0.508 (0.258)	0.513 (0.263)	1.00		
(4) Relationship quality	4	2.75	0.86	0.838	0.60	0.730 (0.533)	0.669 (0.448)	0.651 (0.424)	1.00	
(4) WOM	5	2.64	0.91	0.882	0.64	0.663 (0.440)	0.590 (0.348)	0.857 (0.734)	0.761 (0.440)	1.00

Note: All correlations are significant at $p < 0.001$; values in the blanks are squared correlations. SD=standard deviation; AVE=average variance extracted estimate.

(1) service quality and perceived value and (2) WOM and satisfaction (Table 3). According to Bagozzi & Yi (1988), in this case, discriminant validity between the pairs should be re-examined by combining them into one construct and then performing a χ^2 difference test on the values obtained from the combined and uncombined models.

With regard to the service quality and perceived value, the resulting χ^2 difference was 53.011 ($df=4$), which was significant at $p < 0.001$. Thus, discriminant validity between 'service quality' and 'perceived value' was confirmed. With regard to the WOM and satisfaction, the resulting χ^2 difference was 52.278 ($df=4$), which was significant at $p < 0.001$. Thus, discriminant validity between 'WOM' and 'satisfaction' was confirmed. In summary, all of the constructs' discriminant validities were strongly supported by the data analysis.

Internal consistency of the scales was examined using composite reliabilities. Hair *et al* (1998) suggested a threshold value of 0.70. All composite reliabilities were higher than 0.7, indicating adequate internal consistency.

Table 4 presents factor analysis for the five constructs. As this study deals with service quality as one construct, a separate table presenting factor analysis for the five constructs was needed. Also, Table 3 presents discriminant analysis for the five constructs.

3. Hypotheses Testing

Fig. 2 shows standardized path coefficient and t -values. A structural model showed an acceptable fit. Chi-square was 935.350 with 333 degrees of freedom ($p < 0.001$). CFI=0.912,

IFI=0.913, TLI=0.901 and RMSEA=0.070 (this clarification will appear prior to description of details on findings.).

H1, which proposed a positive relationship between service quality and satisfaction, was supported by a positive standardized coefficient of 0.265 ($t=2.080$, $p < 0.05$). H2, which proposed that service quality positively influences perceived value, was supported by a positive standardized coefficient of 0.831 ($t=7.981$, $p < 0.05$). H3, which suggested that perceived value directly influences satisfaction, was supported by a positive standardized coefficient of 0.293 ($t=2.310$, $p < 0.05$). H4, which predicts a positive relationship between service quality and WOM, was supported by a positive standardized coefficient of 0.263 ($t=2.790$, $p < 0.05$).

H5 suggested a direct path between service quality and relationship quality. This path was supported by a positive standardized coefficient of 0.465 ($t=4.213$, $p < 0.05$). However, H6, which predicts a positive relationship between service quality and WOM, was not supported ($t=0.939$, $p=0.348$). H7, which proposed that relationship quality positively influences WOM, was supported by a positive standardized coefficient of 0.229 ($t=0.3422$, $p < 0.05$).

H8, which proposed a positive relationship between perceived value and WOM, was not supported ($t=1.275$, $p=0.202$). H9 suggested a direct path between satisfaction and relationship quality. This path was supported by a positive standardized coefficient of 0.366 ($t=6.836$, $p < 0.05$). Lastly, H10, which proposed that relationship quality positively influences WOM, was supported by a positive standardized coefficient of 0.627 ($t=10.140$, $p < 0.05$).

Table 4. Confirmatory factor analysis for the five constructs: items and loadings

Construct and scale item	Standardized loading
Service quality	
The chain restaurant does not have my best interests at heart.	0.591
Employees of the chain restaurant are not always willing to help customers.	0.639
Employees of the chain restaurant do not know what my needs are.	0.810
I do not receive prompt service from the chain restaurant's employees.	0.857
Employees of the chain restaurant are too busy to respond to customer requests promptly.	0.668
The chain restaurant is consistent in its food quality.	0.708
The chain restaurant has a nicely decorated environment (e.g. decoration, painting).	0.708
The chain restaurant has comfortable seating.	0.776
The chain restaurant's has visually appealing ambiance.	0.628
When I have problems with its food, the chain restaurant's managerial staff is sympathetic and reassuring.	0.434
When the chain restaurant promises to do something by a certain time, it does so.	0.578
The chain restaurant has dependable service.	0.510
Employees of the chain restaurant are polite.	0.471
Perceived value	
I think the overall food quality of the chain restaurant is high.	0.548
I think that the food quality of the chain restaurant is worth the price paid.	0.598
I think the price of the chain restaurant is competitive with other restaurants.	0.855
The chain restaurant is located in convenient locations.	0.846
Satisfaction	
Considering all my experiences with the restaurant, my choice to dine out at the chain restaurant has been a wise one.	0.841
Overall, I am satisfied with the chain restaurant.	0.874
Relationship quality	
I often feel that I receive preferential treatment from the chain restaurant.	0.739
I often feel that I am treated as being special in the chain restaurant.	0.570
When I go to the chain restaurant, I often feel a sense of community.	0.887
I am familiar with the chain restaurant's accommodations.	0.857
Word of mouth	
I suggest the chain restaurant to my friends/relatives.	0.751
I suggest the chain restaurant to others quite frequently.	0.882
I suggest the chain restaurant to people more than other restaurants.	0.842
When I tell others about the chain restaurant, I tend to talk in great detail.	0.752
Once I get talking about the chain restaurant, it is hard for me to stop.	0.752

Note: All factors loadings are significant at $p < 0.001$. Bold figures represent Cronbach's alpha.

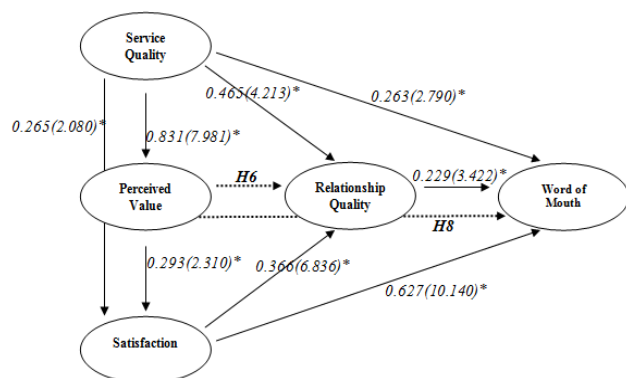


Fig. 2. Standardized theoretical path coefficients.

Note: * $p < 0.01$.

1. Numbers in parentheses are the t -values.
2. Numbers outside of parentheses are the standardized path coefficients.
3. Dotted arrows indicate nonsignificant paths ($p < 0.05$).

Among those four drivers, satisfaction had the strongest impact on WOM (0.627), followed by service quality (0.263).

CONCLUSION

The purpose of this research was to investigate how WOM is formed in the chain restaurant industry. Based on a thorough literature review, four antecedents of WOM were derived: service quality, perceived value, satisfaction, and relationship quality. Theoretical hypotheses that support the causal relationships among those constructs were derived based on the previous literature. In order to test the hypotheses, measurement items were adopted from marketing literature and refined/re-worded, so they closely describe operation in the restaurant industry. The study findings demonstrated how these four antecedents are interrelated and how they influence WOM in the chain restaurant industry.

A positive relationship between service quality and satisfaction (0.265, $p < 0.05$), service quality and perceived value (0.831, $p < 0.05$), service quality and relationship quality (0.465, $p < 0.05$), and service quality and WOM (0.263, $p < 0.05$) were found, indicating that service quality is a key requirement for favorable WOM formation. As a patron receives higher service quality, the patron feels that he/she received more value that paid, thus the overall satisfaction level increases. During this process, positive WOM is created and spreaded out to other people. The model proposed in this study showed how WOM is created. In the restaurant industry, service quality

has historically been recognized as a core driver of customer satisfaction, perceived value, and a prerequisite for relationship quality (Chow *et al* 2007, Gounaris & Venetis 2002, Soriano DR 2002, Yuksel & Yuksel 2002). This study extends the existing literature by (1) examining their interrelationships and (2) investigating the role of service quality in the WOM formation process.

A positive relationship between perceived value and satisfaction was found (0.293, $p < 0.05$). However, the direct impact of perceived value on (1) relationship quality and (2) WOM were not significant. It could be interpreted that the impact of perceived value on WOM was mediated by satisfaction. As shown in Fig. 2, the direct impact of satisfaction is 0.627, indicating strong causal relationship between satisfaction and WOM. Therefore, data analysis indicates that satisfaction is a key mediator and it has a strong impact on WOM formation in the chain restaurant industry. In the restaurant industry, it has long been acknowledged that patrons' satisfaction is a key determinant of revisit intentions, relationship quality, and customer loyalty (e.g., Chiou & Shen 2006, Lam *et al* 2004). This research extends the existing literature by (1) finding the mediating role of satisfaction in the WOM formation (2) finding the strong causal relationship between satisfaction and WOM.

Moreover, the impact of satisfaction on WOM was partially mediated by relationship quality. A positive relationship between relationship quality and WOM was found (0.229, $p < 0.05$), indicating relationship quality's important role in WOM formation. In the history of marketing, relationship quality has played a role of mediator between satisfaction and loyalty (Chiou & Shen 2006, Hyun S 2010, Lam *et al* 2004). This research extends the existing research by (1) finding structural relationship between service quality, satisfaction, relationship quality, and WOM and (2) finding partial mediating role of relationship quality with regards to the relationship between satisfaction and WOM.

1. Indirect Effects

Service quality showed a moderate direct effect (0.265) and a moderate indirect effect on satisfaction via perceived value (0.244). Moreover, service quality's indirect impact on WOM (0.400) is much higher than its direct impact (0.263). These indirect effects indicate the important role of mediators between service quality and WOM. It can be interpreted: In order

to create positive WOM in the restaurant industry, it is important to keep the highest level of service quality. But, more importantly, it is also important to provide higher value (e.g. developing new menu, providing price promotion) and create friendly relationship with patrons (e.g. making a sense of community, providing special treatment to returning patrons). Because these mediators play important indirect roles in creating positive WOM in the restaurant industry.

2. Practical Implication

Other than theoretical contributions mentioned above, this research has key practical implications for chain restaurant managers/marketers/owners. According to data analysis, it is clear that high service quality is a pre-requisite for enhancing patrons' perceived value, satisfaction, relationship quality, and WOM. So, chain restaurant owners should invest larger amount of marketing expenditure into service quality improvement. More specifically, as shown in the factor analysis, it is important to recognize patrons' need quickly and respond it (Responsiveness). To achieve this goal, it is necessary to hire enough number of employees, so they can provide prompt service to each patron. Also, training employees should be emphasized. Data analysis also revealed the importance of interior design, comfortable seating, and ambiance (tangibles). Therefore, to enhance overall service quality, chain restaurant owners should pay attention to such tangible issues. One more thing, to enhance perceived value of patrons, food quality should be improved. Thus, continuous menu development, maintaining high level of cleanliness should be emphasized.

Positive WOM is a critical factor for the success of chain restaurant. Therefore, the findings derived in this study may help chain restaurant owners/managers achieve competitive power for the long term. Given that little study has been conducted regarding WOM in the restaurant industry, the model verified here may serve as a guidance for future research aiming at understanding WOM management in the chain restaurant industry.

REFERENCES

- Anderson EW (1998) Customer satisfaction and word of mouth. *J Serv Res-US* 1: 5-17.
- Anderson JC, Gerbing DG (1988) Structural equation modeling in practice: A review and recommended two-step approach. *Psychol Bull* 103: 411-423.
- Arndt J (1967) "Word of mouth advertising and informal communication" in *Risk Taking and Information Handling in Consumer Behavior*, Donald F. Cox, ed. Boston: Division of Research, Graduate School of Business Administration, Harvard University, pp 188-239.
- Babin BJ, Darden WR, Griffin M (1994) Work and/or fun: Measuring hedonic and utilitarian shopping value. *J Consum Res* 20: 644-656.
- Bagozzi RP, Yi Y (1988) On the evaluation of structural equation models. *J Acad Market Sci* 16: 74-94.
- Berger PD, Echambadi N, George M, Lehmann DR, Rizley R, Venkatesan R (2006) From customer lifetime value to shareholder value: Theory, empirical evidence, and issues for future research. *J Serv Res-US* 9: 156-167.
- Blodgett JG, Hill DJ, Tax SS (1997) The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *J Retailing* 73 (Summer): 185-210.
- Boulding W, Kalra A, Staelin R, Zeithaml VA (1993) A dynamic process model of service quality: From expectations to behavioral intentions. *J Marketing Res* 30: 7-27.
- Brady MK, Robertson CJ (2001) Searching for a consensus on the antecedent role of service quality and satisfaction: an exploratory cross-national study. *J Bus Res* 51: 53-60.
- Brown JJ, Reingen PH (1987) Social ties and word-of-mouth referral behavior. *J Consum Res* 14 (December): 350-362.
- Carve CS, Scheier MF (1990) Origins and functions of positive and negative affect: A control-process view. *Psychol Rev* 97: 19-35.
- Chevalier JA, Mayzlin D (2006) The effect of word of mouth on sales: Online book reviews. *J Marketing Res* 43: 345-354.
- Chiou J, Shen C (2006) The effects of satisfaction, opportunism, and asset specificity on consumers' loyalty intention toward internet portal sites. *Int J Serv Ind Manag* 17: 7-23.
- Chow IH, Lau VP, Lo TW, Sha Z, Yun H (2007) Service quality in restaurant operations in China: decision- and experiential-oriented perspectives. *Internat J Hosp Manag* 26: 698-710.
- Cohen JB, Fishbein M, Ahtola OT (1972) The nature and uses of expectancy-value models in consumer attitude research. *J Market Res* 9: 456-460.
- Cronin JJ Jr, Taylor SA (1992) Measuring service quality: A reexamination and extension. *J Marketing* 56: 55-68.
- Cronin JJ, Taylor SA (1994) SERVPERF versus SERVQUAL:

- Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *J Marketing* 58: 125-131.
- Crosby LA, Evans KR, Cowles D (1990) Relationship quality in services selling: An interpersonal influence perspective. *J Marketing* 54: 68-81.
- Day E, Crask, MR (2000) Value assessment: The antecedent of customer satisfaction. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour* 13: 42-50.
- Dichter E (1966) How word-of-mouth advertising works. *Harvard Bus Rev* 44 (November-December): 147-166.
- Dutta K, Venkatesh U, Parsa HG (2007) Service failure and recovery strategies in the restaurant sector: An Indo-US comparative study. *International Journal of Contemporary Hospitality Management* 19: 351-363.
- Emerson RM (1976) Social exchange theory. *Annu Rev Sociol* 2: 335-363.
- Fornell C, Larcker DF (1981) Evaluating structural equation models with unobservable variables and measurement error. *J Market Res* 18: 39-50.
- Frenzen K, Nakamoto K (1993) Structure, cooperation, and the flow of market information. *J Consum Res* 20 (December): 360-375.
- Gatignon H, Robertson TS (1986) An exchange theory model of interpersonal communication, in *Advances in Consumer Research*, Vol. 13, Richard J. Lutz, ed. Provo, UT: Association for Consumer Research: 534-538.
- Gounaris SP, Venetis K (2002) Trust in industrial service relationships: behavioral consequences, antecedents and the moderating effect of the duration of the relationship. *J Serv Mark* 16: 636-655.
- Gremler DD, Gwinner KP, Brown SW (2001) Generating positive word-of-mouth communication through customer-employee relationships. *Int J Serv Ind Manag* 12: 44-59.
- Ha J, Jang SC (2010) Perceived values, satisfaction, and behavioral intentions: The role of familiarity in Korean restaurants. *Int J Hosp Manag* 29: 2-13.
- Hair JF Jr, Anderson RE, Tatham RL, Black WC (1998) *Multivariate data analysis*. Upper Saddle River, NJ: Prentice-Hall. pp 104-118.
- Harrison-Walker LJ (2001) The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents. *J Serv Res-US* 4: 60-75.
- Hartline MD, Jones KC (1996) Employee performance cues in a hotel service environment: influence on perceived service quality, value, word of mouth intentions. *J Bus Res* 35: 207-216.
- Hennig-Thurau T, Gwinner KP, Gremler DD (2002) Understanding relationship marketing outcomes: An integration of relational benefits and relationship quality. *J Serv Res* 4: 230-247.
- Hinkin TR, Tracey JB, Enz CA (1997) Scale construction: developing reliable and valid measurement instruments. *Journal of Hospitality and Tourism Research* 21: 100-120.
- Hyun S (2009) Creating a model of customer equity for chain restaurant brand formation. *Int J Hosp Manag* 28: 529-539.
- Hyun S (2010) Predictors of relationship quality and loyalty in the chain restaurant industry. *Cornell Hosp Q* 51: 251-267.
- Jarvelin A, Lehtinen U (1996) Relationship quality in business-to-business service context. In BB Edvardsson, SW Johnston & EE Scheuing (Eds.), *Advancing service quality: A global perspective* (pp 243-254). Lethbridge, Canada: Warwick Printing.
- Jones MA, Reynolds KE, Arnold MJ (2006) Hedonic and utilitarian shopping value: investigating differential effects on retail outcomes. *J Bus Res* 59: 974-981.
- Jones TO, Sasser WE Jr (1995) Why satisfied customers defect. *Harvard Bus Rev* 73(November-December): 88-99.
- Kim WG, Han JS, Lee E (2001) Effects of relationship marketing on repeat purchase and word of mouth. *Journal of Hospitality and Tourism Research* 25: 272-288.
- Lam SY, Shankar V, Erramilli MK, Murthy B (2004) Customer value, satisfaction, loyalty, and switching costs: An illustration from a business-to-business service context. *J Acad Market Sci* 32: 293-311.
- Lin C, Sher PJ, Shih H (2005) Past progress and future directions in conceptualizing customer perceived value. *Int J Serv Ind Manag* 16: 318-336.
- Mano H, Oliver RL (1993) Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling, and satisfaction. *J Consum Res* 20 (December): 451-466.
- McDougall GHG, Levesque T (2000) Customer satisfaction with services: putting perceived value into the equation. *J Serv Mark* 14: 392-410.
- Mummert H (2000) The year's best bells & whistles. *Target Marketing* 23: 3-5.

- Oh H (1999) Service quality, customer satisfaction, and customer value: A holistic perspective. *Int J Hosp Manag* 18: 67-82.
- Oliver RL (1980) A cognitive model of the antecedents and consequences on satisfaction decisions. *J Market Res* 17: 460-469.
- Oliver RL (1992) An investigation of the attribute basis of emotion and related affects in consumption: Suggestions for a stage-specific satisfaction framework. *Adv Consum Res* 19: 237-244.
- Raymond MA, Tanner JF Jr (1994) Maintaining customer relationships in direct sales: Stimulating repeat purchase behavior. *Journal of Personal Selling and Sales Management* 14(Fall): 67-76.
- Reichheld FF, Sasser WE (1990). Zero, defection: Quality comes to service. *Harvard Bus Rev* 68: 105-111.
- Roberts K, Varki S, Brodie R (2003) Measuring the quality of relationships in consumer services: An empirical study. *Eur J Marketing* 37: 169-196.
- Rust RT, Zeithaml VA, Lemon KN (2000) Driving customer equity. New York: Free Press. p 267.
- Ryu G, Feick L (2007). A penny for your thought: Referral reward programs and referral likelihood. *J Marketing* 71: 84-89.
- Sethi V, King W (1994). Development of measures to assess the extent to which an information technology application provides competitive advantage. *Manage Sci* 40: 1601-1624.
- Sirdeshmukh D, Singh J, Sabol B (2002). Consumer trust, value, and loyalty in relational exchanges. *J Marketing* 66: 15-37.
- Soriano DR (2002) Customers' expectations factors in restaurants: The situation in Spain. *International Journal of Quality and Reliability Management* 19: 1055-1068.
- Spreng RA, Mackoy RD (1996) An empirical examination of a model of perceived service quality and satisfaction. *J Retailing* 72: 201-214.
- Susskind AM (2002) I told you so!: Restaurant customers' word-of-mouth communication patterns. *Cornell Hotel Rest A* 43: 75-85.
- Swan JE, Oliver RL (1989) Post-purchase communications by consumers. *J Retailing* 65: 516-533.
- Tanner JF Jr (1996) Buyer perceptions of the purchase process and its effects on customer satisfaction. *Ind Market Manag* 25: 125-133.
- Taylor SA, Baker TL (1994) An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. *J Retailing* 70: 163-178.
- Vallacher RR, Wegner DM (1987) What do people think they are doing? Action identification and human behavior. *Psychol Rev* 94: 3-15.
- Westbrook RA, Oliver RL (1991) The dimensionality of consumption emotion patterns and consumer satisfaction. *J Consum Res* 18(June): 84-91.
- Wikipedia, 2008. Restaurant chains. Retrieved October 19, 2008 from http://en.wikipedia.org/wiki/Restaurant_chain#Restaurant_chains
- Yuksel A, Yuksel F (2002) Measurement of tourist satisfaction with restaurant services: A segment-based approach. *Journal of Vacation Marketing* 9: 52-68.
- Zeithaml VA (1988) Consumer perceptions of price, quality and value: A means-end model and synthesis of evidence. *J Marketing* 52: 2-22.
- Zikmund W (2003) Business research method. Mason, OH: Thomson South-Western. p 117.

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