STUDY ON THE CORRELATION AMONG SERVICE QUALITY, RELATIONSHIP QUALITY AND CUSTOMER SATISFACTION – A CASE STUDY OF H HOTEL

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Abstract- Due to the public's growing demand on hotel service quality, under the increasingly intense market competition, how the hotels improve service quality and relationship quality, in order to provide the guests with better services and improve business performance, has been the focus in the operational strategies of many hotels. This study aims to explore the correlation among hotel service quality, relationship quality and customer satisfaction. From March 2015 to April 2015, a total of 181 valid questionnaires were retrieved. The results showed that better service quality has a significantly positive effect on relationship quality and customer satisfaction. When the relationship quality is high, the customer satisfaction is also higher. Therefore, hotels should enhance customer satisfaction by improving service quality and relationship quality, thus elevating business performance. This study also explored the execution of service quality, and proposed the improvement items as reference for hotels.

Keywords - Service quality, Relationship quality, Customer satisfaction

I. INTRODUCTION

Under the economic development in recent years, the increased national income, and the policy of two-day weekend, the public has more free time, and leisure tourism has become necessity in life. Thus, many hotels are entering the leisure tourism market, leading to increasingly intense competition. Due to the public's high demand on hotel service quality, and faced with intense market competition, how the hotels improve service quality and relationship quality, in order to provide customers with better services and promote the business performance, has been a focus in the operational strategies of many hotels. This study treated H Hotel as the subject to explore the correlation among service quality, relationship quality and customer satisfaction. Regarding the current service quality of the hotel, this study proposed improvement items. The research purposes are as follows: 1) to explore the effect of service quality on relationship quality; 2) to explore the effect of service quality on customer satisfaction; 3) to explore the effect of relationship quality on customer satisfaction; (4) to explore the perceived satisfaction of service quality, and propose improvement items for reference of hotels.

II. LITERATURE REVIEW

1. SERVICE QUALITY

Parasuraman et al. (1988) suggested that service quality is determined by customers, namely the difference between their expected service and the actual perception. Parasuraman et al. (1985) proposed ten dimensions to measure service, including reliability, responsiveness, competence, accessibility, courtesy, communication, trust, safety,

understanding, and tangibility. Parasuraman et al. (1988) reduced the above 10 dimensions to 5 dimensions using factor analysis, namely reliability, responsiveness, tangibility, assurance and empathy. Haywood-Farmer (1998) proposed that service quality can be divided into 3 dimensions, which are (1) equipment, process and procedure: including geographic location and store design, store size and decoration, coordination ability in service process, and the scope of service; (2) service staff's behavior: including timeliness and speed of service, communication ability, attitude, friendliness, intimacy; wittiness, courtesy, complaint handling, and problem solving; (3) service staff's professional judgment: including diagnosis, honesty, trust, flexibility, discriminability, knowledge and skill. This study referred to Parasuraman et al. (1985), Parasuraman et al. (1988), Smith and Barclay (1997) and Haywood-Farmer (1988), and summarized 7 dimensions to measure the service quality of hotels according to the operational characteristics of the hotel industry, including responsiveness, professionalism, tangibility, convenience, reliability, empathy and assurance .

2. RELATIONSHIP QUALITY

Crosby et al. (1990) used relationship quality to measure the relationship between service staff and customers, and defined relationship quality as: an overall evaluation of the relationship strength between the buyer and the seller, and the evaluation conforming to the demands and expectations of both parties at the same time. Hennig-Thurau and Klee (1997) suggested that relationship quality is a relationship level between the customers and the enterprises, and such relationship level depends on the degree of meeting customers' demands. In other words, if the relationship

between the customers and the enterprises can better meet the customers' demands, then relationship quality is better. Many studies have suggested the connotation of relationship quality includes at least 2 dimensions, namely trust and satisfaction (Hennig-Thurau., 2002;Crosby et al., 1990; Kumar et al., 1995; Bejou et al.,1996; Robert et al., 2003). Leuthesser (1997) indicated that the dimension of commitment should also be included in the discussion of relationship quality, in order to completely express relationship quality. Smith (1998) integrated views of many scholars, and proposed that relationship quality should include 3 dimensions, namely satisfaction, commitment and trust. Hsu & Yeh (2013), Pierre et al. (2010), Vesel & Zabkar (2010) also suggested that relationship quality includes 3 dimensions, namely trust, satisfaction and commitment. This study referred to Leuthesser (1997), measured relationship quality with the 3 dimensions of satisfaction, commitment and trust.

3. CUSTOMER SATISFACTION

Phillip et al. (2003) indicated that customer satisfaction refers to the degree of the customers' overall satisfaction and fulfillment regard the service process. Lee et al. (2008) stated that customer satisfaction is a real emotional response generated toward the appropriate consumption experience assessment. Ostrom & Iacobucci (1995) argued that the measurement dimensions of customer satisfaction include product price, service efficiency, service staff's attitude, the overall performance of company, and the gap toward the ideal company. Nicholls et al. (1998) indicated that measurement dimensions of customer satisfaction include staff service and service environment. Kuo et al. (2000) measured customer satisfaction in the service industry with 7 dimensions, which are service content, price, convenience, corporate image, service equipment, service staff, and service process. Based on the literature review and considering the characteristics of the hotel industry, this study divided customer satisfaction into 3 dimensions, namely room satisfaction, service satisfaction, and product satisfaction.

4. SERVICE QUALITY AND RELATIONSHIP QUALITY

Tung (2001) pointed out that service quality has a positive effect on relationship quality. Kim & Cha (2002) investigated five-star hotels in Seoul, Korea, and found that high service quality bring high relationship quality. Li (2004) investigated the information product distribution industry, and found that service quality (tangibility, reliability, responsiveness, assurance and empathy) has a positive effect on relationship quality. Based on the above, this paper proposes H1: service quality has a significantly positive effect on relationship quality.

5. SERVICE QUALITY AND CUSTOMER SATISFACTION

Cronin & Taylor (1992) indicated that service quality has an effect on the customers' repurchase intention. Zeithaml et al. (1996) pointed out that enhancement of service quality has a positive effect on customer satisfaction. Cronin & Taylor (1992) argued that service quality is one of the factors in the formation of customer satisfaction, and promotion of service quality can enhance customer satisfaction (Parasuraman et al., 1988). Based on the above, this paper proposes H2: service

quality has a significantly positive effect on customer satisfaction.

6. RELATIONSHIP QUALITY AND CUSTOMER SATISFACTION

Herington & Weaven (2007) found that relationship benefits render the customers to have favorable evaluation on the service providers. Crosby et al. (1990) proposed that good relationship quality improves customer satisfaction. Lin (2006) held that relationship quality has a significant positive effect on customer satisfaction. Zeitham & Bitner (1996) pointed out that maintaining good relationship quality can improve customer satisfaction. Based on the above, this paper proposes H3: relationship quality has a significantly positive effect on customer satisfaction.

III. RESEARCH METHOD

This study aims to explore the correlation among hotel service quality, relationship quality and customer satisfaction. According to literature review, this paper proposes the following hypotheses:

H1: service quality has a significantly positive effect on relationship quality.

H2: service quality has a significantly positive effect on customer satisfaction.

H3: relationship quality has a significantly positive effect on customer satisfaction.

1. QUESTIONNAIRE COLLECTION AND DATA ANALYSIS

The questionnaire used in this study contains 4 parts. The first three parts are based on Likert 5-point scales. The first part concerns service quality, which includes 7 types: (1) responsiveness; (2) professionalism; (3) tangibility; (4) convenience; (5) reliability; (6) empathy; (7) assurance. The second part concerns relationship quality, which includes 3 dimensions: (1) satisfaction; (2) commitment; (3) trust. The third part concerns satisfaction, which includes 3 dimensions: (1) room satisfaction; (2) service satisfaction; (3) product satisfaction. The fourth part is about personal data, such as gender, age, and hotel location. This study distributed the questionnaires during the period from March 2015 to April 2015. The population was hotel guests. A total of 200 questionnaires were distributed, and 181 valid samples were retrieved. Nunnally (1978) suggested that in an exploratory research, the reliability should be at least 0.7. The reliability of each variable in this questionnaire is above 0.7 (as shown in Table 1), suggesting good reliability. The data were analyzed with ANOVA and t test using SPSS statistical software.

2. METHODS TO MEASURE VARIABLES

The measured variables include service quality, relationship quality, and satisfaction. The measurements are described as follows:

1. **Measurement of Service Quality**

This study divided service quality into 7 dimensions, namely responsiveness, professionalism, tangibility, convenience, reliability, empathy and assurance. The items are described below:

(1) Responsiveness: the items include: (a) the service staff in the hotel can rapidly respond to the customers' demands and problems; (b) the service staff in the hotel can rapidly provide the service that the customers need; (c) the service staff in the hotel pays attention to the customers' rights and interests, and they do not neglect the customers even when they are busy.

(2) Professionalism: the items include: (a) the service staff in the hotel are fluent in foreign language; (b) the service staff in the hotel can provide different professional knowledge; (c) the service staff in the hotel can provide suitable services according to personal preferences; (d) the service staff in the hotel can appropriately answer the questions; (e) the service staff in the hotel can solve the customers' problems.

(3) Tangibility: the items include: (a) the hotel has modern and professional equipment and facilities; (b) there are clear indications for facilities, directions, and signs; (c) the hotel provides complete and diverse services and facilities; (d) the hotel facilities are updated and well-maintained.

(4) Convenience: the items include: (a) the geographic location of the hotel is convenient; (b) the room reservation service of the hotel is convenient; (c) the Internet service in the hotel is convenient.

(5) Reliability: the items include: (a) the service staff in the hotel can fulfill their responsibilities; (b) the accommodation environment in the hotel is comfortable and clean; (c) the service staff can correctly analyze the customers' demands and provide the appropriate service; (d) the service staff can try their best to assist to solve the customers' problems; (e) the service staff can do the things right in one time.

(6) Empathy: the items include: (a) the service staff in the hotel can provide right and rapid services; (b) the service in the hotel can meet the customers' demands immediately; (c) the service staff can actively provide personalized care and service for the customers; (d) the service staff can try their best to assist to solve the problems; (e) the consulting service in the hotel is complete and real.

 (7) Assurance: the content includes (a) the service staff can professionally respond to any problems; (b) the service staff can provide dedicated service; (c) the service staff can provide services according to customers' different demands; (e) the service staff in the hotel can maintain the consistent service level.

The measurement was based on a Likert 5-point scale, ranging from strongly agree (5) to strongly disagree (1).

2. Measurement of Relationship Quality

This study divided relationship quality into 3 dimensions, namely satisfaction, commitment and trust. The items are described below:

(1) Satisfaction: the items include: (a) the service staff in the hotel provide good service; (b) the service staff in the hotel can understand the customers' demands; (c) the hotel can provide the products or services meeting the customers' requirements; (d) the service staff can rapidly solve the customers' doubts and complaints; (e) overall, I feel satisfied with the services provided by the hotel.

(2) Commitment: the items include: (a) the service staff can timely deliver their promises; (b) the service staff can fulfill their promises; (c) the service staff can responsibly complete various services.

(3) Trust: the items include: (a) the service staff can give priority to the customers' interests; (b) the hotel provides the valuable and trustworthy information for the customers; (c) the service staff have sufficient professional knowledge to solve the customers' problems.

The measurement was based on a Likert 5-point scale, ranging from strongly agree (5) to strongly disagree (1).

3. Measurement of Customer Satisfaction

Based on literature review and considering the characteristics of the hotel industry, this study used the dimension of room satisfaction, service satisfaction and product satisfaction to measure customer satisfaction. The items are described as follows:

(1) Room satisfaction: the items include: (a) the rooms of the hotel are clean and neat; (b) the equipment inside the rooms is complete; (c) I am satisfied with the room service of the hotel.

(2) Service satisfaction: the items include: (a) I am satisfied with the responsiveness of the hotel; (b) I am satisfied with the service efficiency of the hotel; (c) I am satisfied with the service attitude of the service staff; (d) I am satisfied with the consulting service of the hotel.

(3) Product satisfaction: the item includes (a) I am satisfied with the taste of the food and beverage provided by the hotel; (b) I am satisfied with the choices of the food and beverage provided by the hotel; (c) I am satisfied with the equipment use experience in the hotel; (d) I am satisfied with the complete equipment in the hotel; (e) I am satisfied with the facilities and equipment in the hotel.

The measurement was based on a Likert 5-point scale, ranging from strongly agree (5) to strongly disagree (1).

IV. RESEARCH RESULTS

1. CORRELATION BETWEEN THE DELIVERY OF SERVICE QUALITY AND RELATIONSHIP QUALITY

This study divided service quality (responsiveness, professionalism, tangibility, convenience, reliability, empathy and assurance) into 2 groups (high degree and low degree), and examined whether there are significant differences between them based on the average scores of the relationship quality (3 dimensions of satisfaction, commitment and trust) in each group. Table 2 shows the ANOVA results of the effect of service quality on relationship quality. Based on the results, H1 is supported.

2. CORRELATION BETWEEN THE DELIVERY OF SERVICE QUALITY AND CUSTOMER SATISFACTION

This study divided service quality (responsiveness, professionalism, tangibility, convenience, reliability, empathy and assurance) into 2 groups (high degree and low degree), and examined whether there are significant differences

between them based on the average scores of customer satisfaction degree (dimensions of room satisfaction, service satisfaction and product satisfaction) in each group. Table 3 shows the ANOVA results on the effect of service quality on customer satisfaction. Based on the results, H2 is supported.

3. CORRELATION BETWEEN THE DELIVER OF RELATIONSHIP QUALITY AND CUSTOMER SATISFACTION

This study divided relationship quality (3 dimensions of satisfaction, commitment and trust) into 2 groups (high degree and low degree), and examined whether there are significant differences between them based on the average scores of customer satisfaction (dimensions of room satisfaction, service satisfaction and product satisfaction) in each group. Table 4 shows the ANOVA results on the effect of relationship quality on customer satisfaction. Based on the results, H3 is supported.

4. SERVICE QUALITY DEGREE

This study used 30 items of 7 dimensions (responsiveness, professionalism, tangibility, convenience, reliability, empathy and assurance) as the measurement indicators to evaluate service quality, and analyzed the results with t test. The results are as shown in Table 5. As seen, in terms of perceived service quality, the dimensions of responsiveness, professionalism and convenience have high scores, all have only one indicators not meeting the perceived satisfaction (p-value<0.05). The items with lower scores include the dimensions of tangibility, reliability, empathy and assurance. It is suggested that the hotel should improve the items fail to meet customer satisfaction.

H0: $\mu = 4$
H1: $\mu \neq 4$

V. CONCLUSION AND SUGGESTIONS

This study used 30 items of 7 dimensions (responsiveness, professional, tangibility, convenience, reliability, empathy and assurance) as the measurement indicators to evaluate service quality, and conducted t test. The results showed that in terms of perceived service quality, the dimensions of responsiveness, professionalism and convenience have higher scores, all have only one indicator failing to meet customer satisfaction. The items with lower scores include the dimensions of tangibility, reliability, empathy and assurance. It is suggested that the hotel should improve the items that do not meet customer satisfaction, in order to improve service quality and enhance customer satisfaction. This treated H Hotel as the target to explore the correlation among service quality, relationship quality and customer satisfaction. The results showed that improved service quality can enhance relationship quality and customer satisfaction. Better relationship quality has a significantly positive effect on customer satisfaction. Therefore, hotels can enhance customer satisfaction by improving service quality and relationship quality. This study only investigated H Hotel, and empirical study can be conducted on other industries in the future to explore the correlation among service quality, relationship quality and customer satisfaction, so as to provide more complete research results.

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Table 1 Reliability of the variables

Questionnaire dimension		Cronbach's α
Service quality	Responsiveness	0.807
	Professionalism	0.873
	Tangibility	0.858
	Convenience	0.839
	Reliability	0.887
	Empathy	0.861
	Assurance	0.825
Relationship quality	Satisfaction	0.866
	Commitment	0.857
	Trust	0.848
Customer Satisfaction	Room satisfaction	0.887
	Service satisfaction	0.913
	Product satisfaction	0.891

Table 2 ANOVA of the effect of service quality on relationship quality

		Satisfaction	Commitment	Trust
Responsiveness	Low#	3.002	3.129	3.014
	High#	4.021	4.119	4.138
	F-value	131.540	108.404	153.231
	P-value	0.000*	0.000*	0.000*
Professionalism	Low#	3.031	2.973	3.027
	High#	4.018	4.140	4.150
	F-value	61.691	89.804	76.012
	P-value	0.000*	0.000*	0.000*
Tangibility	Low#	3.013	3.044	3.094
	High#	4.056	4.146	4.156
	F-value	164.556	158.808	136.553
	P-value	0.000*	0.000*	0.000*
Convenience	Low#	2.957	3.012	2.986
	High#	4.049	4.135	4.160
	F-value	171.020	153.375	175.514
	P-value	0.000*	0.000*	0.000*
Reliability	Low#	3.014	2.981	3.006
	High#	4.048	4.163	4.184
	F-value	156.192	205.941	198.411
	P-value	0.000*	0.000*	0.000*
Empathy	Low#	3.002	3.012	3.056
	High#	4.069	4.168	4.181
	F-value	184.172	196.111	172.991
	P-value	0.000*	0.000*	0.000*
Assurance	Low#	2.889	2.804	2.826
	High#	4.044	4.170	4.193
	F-value	208.379	349.761	341.297
	P-value	0.000*	0.000*	0.000*

Note : Low# : the average score lower than 3.50 ； High# : the average score higher than 3.50 ； $* p < 0.05$.

Table 3 ANOVA of the effect of service quality on customer satisfaction

		Room satisfaction	Service satisfaction	Product satisfaction
Responsiveness	Low#	3.045	2.953	2.916
	High#	4.223	4.190	3.952
	F-value	218.225	300.985	198.868
	P-value	0.000*	0.000*	0.000*
Professionalism	Low#	3.104	3.012	2,978
	High#	4.145	4.115	3.886
	F-value	115.939	157.082	106.093
	P-value	0.000*	0.000*	0.000*
Tangibility	Low#	3.120	2.972	2.893
	High#	4.118	4.099	3.891
	F-value	94.292	150.313	134.066
	P-value	0.000*	0.000*	0.000*
Convenience	Low#	3.217	3.101	2.976
	High#	4.126	4.103	3.921
	F-value	81.914	117.578	137.679
	P-value	0.000*	0.000*	0.000*
Reliability	Low#	3.109	3.019	2.962
	High#	4.191	4.159	3.941
	F-value	153.693	203.698	166.303
	P-value	0.000*	0.000*	0.000*
Empathy	Low#	3.185	3.074	2.967
	High#	4.176	4.154	3.954
	F-value	117.236	170.754	179.414
	P-value	0.000*	0.000*	0.000*
Assurance	Low#	2.942	2.844	2.800
	High#	4.200	4.169	3.953
	F-value	245.003	356.312	288.734
	P-value	0.000*	0.000*	0.000*

Note：Low#：the average score lower than 3.50；High#：the average score higher than 3.50； * $p < 0.05$.

Table 4 ANOVA of the effect of relationship quality on customer satisfaction

		Room satisfaction	Service satisfaction	Product satisfaction
Satisfaction	Low#	3.167	3.144	2.911
	High#	4.184	4.124	3.978
	F-value	128.905	120.200	251.345
	P-value	0.000*	0.000*	0.000*
Commitment	Low#	2.985	2.862	2.853
	High#	4.177	4.153	3.927
	F-value	186.817	294.636	199.734
	P-value	0.000*	0.000*	0.000*
Trust	Low#	3.067	2.924	2.900
	High#	4.229	4.178	3.950
	F-value	170.607	303.534	210.095
	P-value	0.000*	0.000*	0.000*

Note：Low#：the average score lower than 3.50；High#：the average score higher than 3.50； * $p < 0.05$.

Table 5 Perceived service quality

Dimension	Perceived degree			
	Mean value	SD	T-value	p-value
1. Responsiveness				
1) The service staff in the hotel can rapidly respond to the customers' demands and problems	3.890	0.802	-1.852	0.065
2) The service staff in the hotel can rapidly provide the service that the customers need	3.923	0.806	-1.291	0.198
3) The service staff in the hotel pays attention to the customers' rights and interests, and they do not neglect the customers even when they are busy.	3.857	0.926	-2.088	0.038*
2. Professionalism				
1) The service staff in the hotel are fluent in foreign language	3.840	0.864	-2.495	0.013*
2) The service staff in the hotel can provide different professional knowledge	3.867	0.927	-1.924	0.056
3) The service staff in the hotel can provide suitable services according to personal preferences	3.879	0.976	-1.676	0.095
4) The service staff in the hotel can appropriately answer the questions	3.923	0.859	-1.211	0.227
5) The service staff in the hotel can solve the customers' problems.	3.893	0.923	-1.696	0.092
3. Tangibility				
1) The hotel has modern and professional equipment and facilities	3.862	0.951	-1.833	0.054
2) There are clear indications for facilities, directions, and signs	3.862	0.822	-2.261	0.025*
3) The hotel provides complete and diverse services and facilities	3.834	0.860	-2.594	0.010*
4) The hotel facilities are updated and well-maintained	3.821	0.673	-3.658	0.000*
4. Convenience				
1) The geographic location of the hotel is convenient	3.845	0.729	-2,855	0.005*
2) The room reservation service of the hotel is convenient	3.867	0.985	-1.810	0.072
3) The Internet service in the hotel is convenient.	3.917	0.924	-1.206	0.229
5. Reliability				
1) The service staff in the hotel can fulfill their responsibilities	3.893	0.834	-1.709	0.089
2) The accommodation environment in the hotel is comfortable and clean	3.901	0.753	-1.776	0.078
3) The service staff can correctly analyze the customers' demands and provide the appropriate service	3.823	0.838	-2.839	0.005*
4) The service staff can try their best to assist to solve the customers' problems	3.895	0.963	-1.466	0.144
5) The service staff can do the things right in one time	3.796	0.867	-3.171	0.002*
6. Empathy				
1) The service staff in the hotel can provide right and rapid services	3.856	0.768	-2.515	0.013*
2) The service in the hotel can meet the customers' demands immediately	3.911	0.763	-1.560	0.120
3) The service staff can actively provide personalized care and service for the customers	3.746	0.714	-4.269	0.000*
4) The service staff can try their best to assist to solve the problems	3.851	0.820	-2.448	0.015*
5) The consulting service in the hotel is complete and real	3.802	0.903	-2.963	0.003*
7. Assurance				
1) The service staff can professionally respond to any problems	3.884	0.839	-1.861	0.064
2) The service staff can provide dedicated service	3.856	0.870	-2.221	0.028*
3) The service staff can answer any questions for the customers	3.857	0.864	-2.238	0.026*
4) The service staff can provide services according to customers' different demands	3.901	0.857	-1.561	0.120
5) The service staff in the hotel can maintain the consistent service level.	3.862	0.842	-2.208	0.029*

Note: H0: $\mu = 4$, H1: $\mu \neq 4$; *p < 0.05