A Study of General Reducing Criteria of Customer-Oriented Perceived Gap for Hotel Service Quality

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Abstract

In recent years, speedy development of Taiwan's hotel industry intensifies market competition, customers' demands on hotel services quality also increase with the increase of their consumption consciousness, and their demands on hotel types diversify, therefore hotel industry should concern on their unique management services quality brought by their different hotel types. The current designed service system or service transmission process may fail to meet customers' demands owing to emphasizing degree gap in service quality. What is worse, it is difficult for hotel industry to actualize complete customer segregation and to provide customized services, therefore comprehensive understanding of customers' demands on the service quality of different types hotels would contribute to operating management improvement of Taiwan hotel industry. This paper divides Taiwan hotels into three types: international tourism commercial type, holiday type and motel, the general hotels. It studies the emphasize degree gap in service quality between the industry and the customers. Data analysis shows that service quality gap (perceived gap) of hotels of different types exists in several quality aspects; what's more, the perceived gaps, service quality aspects, and its items of different types of hotel are also different. After an integrated analysis, this paper puts forward a general and customer-oriented quality item suitable for hotel industry to shorten the perceived gap of service quality, so that the hotel industry could design a service system and service transfer system, which could meet most lodging customers' demands in the context of pluralized customer sources.

Key Words: Customer-oriented, Perceived gap, Service quality

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1. Introduction

In recent years, speedy development of Taiwan's hotel industry intensifies market competition, customers' demands on hotel services quality increase naturally, their demands on hotel types diversify, therefore hotel industry should concern on its unique management services quality brought by its hotel type. The hotel industry of different types has well learnt that they should investigate the Voice of Customer (VOC) so that they could understand individual demand, then improve and elevate their service quality based on the service quality items valued by customers. Therefore, comprehensive understanding of the particularities and requirements of lodging customers would be crucial for holding the changes of travel market. Data of Tourism Bureau (2003) shows that gross operating income of international tourism hotel tops other types of hotels, the emphasizing degree on customers, and the budget to invest hardware and software, as well as the budget to improve services are also higher than other types. This shows that all the aspects of international tourism hotels are better that that of other types. In recent years, motels develop quickly in the context of speedily developed tourism, its scale enlarges, and condition improves. Secondly, statistical data of Tourism Bureau of Ministry of Communications (2003) shows that 29.74% of travelers coming to Taiwan for business and conferences, 25.75% are for tourism. 29.74% of the tourists come to Taiwan for business and conferences, 25.75% are for tourism, and these are the two major purposes. It shows that business, conferences, tourism, and holiday are the most important parts of Taiwan tourism and commercial tourist market, therefore different types of hotel industry have designed various services, provided different installations and equipments to meet the different purposes and requirements from their customers.

The hotel feature, operating mode, location, and travelers' purpose to Taiwan would have different representations on customer requirements, therefore commercial, holiday or motel travelers would have different concerns on their hotel selections, then service quality demands and the emphasizing degree would also be different. This research takes five service quality-judging aspects proposed by Parasuraman et al. (1988) as the foundation for questionnaire survey, and then it presents emphasizing degrees on service quality aspect and items among different types of hotels and lodging customers. It finds out the existed perceived gap and possible reasons, finally it puts forward the quality aspects and items of general reducing criteria of customer-oriented perceived gap for hotel services quality as the references for operating managers. It provides favorable and relevant information for hotel industry, and helps them to understand and acquire useful Voice of Customer as reference to improve and elevate service quality. This research puts forward two hypotheses to check whether there are significant gaps between the industry's emphasizing degree on service quality and that of customers.

H_0 1: Whether there are significant gaps on emphasizing degree of service quality among different types of hotels.

H_0 2: Whether there are significant gaps on emphasizing degree of service quality among lodging customer's of different types of hotels.

2. Literature Review

It defines service quality, then discusses judging aspects for service quality of hotel industry, and then studies definition of hotels, international tourism hotels, and its classification.

2.1 Definition of Service Quality

The following paper is about the definitions and judgments of service quality presented by different scholars. Parasuraman *et al.* (1985) suggested assessment of service quality is harder than that of general products. They believe the customers' perception on service quality is the comparison result between their expected service quality and actual service quality, the assessment on service quality includes the assessment on the service result, as well as service transfer process. Liu (1991) pointed out that customer perceived gap determines service quality, their satisfactory degree bases on whole service quality; this is the perceived expectation gap. He and Su (1995) suggested that service quality is a long-term customer satisfaction level with certain degree of stability cognized by a group of typical consumers on certain service. Lin (1996) proposed that service quality is customers' evaluation on general superiority degree of the service, it is a cognitive quality rather than objective quality, and it stems from the comparison between service expectation and service. It is hard to judge service quality since it is an output quality combined by the customers' expected level on the service, past experiences and personal feelings as well as the actual receiving of service. If this quality fails to reach the expected level then it is unacceptable quality; if it meets the expected level, it is the satisfied quality; if it exceeds expected level, it is the ideal quality.

2.2 Judgment Aspects of Service Quality

Many experts put forward the aspects to judge service quality, among which, the judgment aspect put forward by Parasuraman *et al.* (1988) is most often quoted, and widely used in relative studies. It sums up 5 aspects of service quality: tangible (entity facilities, equipments, and appearance of staff and), reliability (the ability to carry out the commitment and services reliably and correctly), responsiveness (the desire to help customers and provide in-time services), assurance (employee's knowledge, manners and their reliance), and empathy (concern on the individual request of the customer). This research refers to the five aspects of service

quality proposed by Parasuraman *et al.* (1988), Tangible, Reliability, Responsiveness, Assurance, Empathy, and then designs the SERVQUAL scale to judge service quality of different types of hotels based on the features of different hotel types.

2.3 Definition of Hotel, International Tourism Hotel

2.3.1 Definition of Hotel

United States convenes one meeting for hotel industry in Ohio State in May, 1915, and presents the definition for "hotel:" "A mansion or some other buildings, which are known to the public that it would provide abidance and diet for the travelers and would collect charges. It includes one or more than one restaurants or reception room or in the neighborhood to provide diet for the travelers, this is a hotel." "And it specifies that" any individual, firm or company could use one mansion or other buildings to manage tourism and cuisine business, but it must register to relevant appropriate bodies, then it can be called a hotel (Hsieh and Wu, 1997).

2.3.2 Definition of International Tourism Hotel

International tourism hotel is built following international tourism hotel building and equipment standards, general tourism hotels would follow the construction equipment standards specified by the Fifth, and Sixth item of Taiwan Tourism Hotel Administration Methods and it should first apply to build the hotels following the ninth item of the same law. The international tourism hotels are the four to five plum blossom hotels according to the evaluation standard of tourism hotel rates (Shi and Chiang, 1997).

2.3.3 Hotel Classification

- **Commercial hotel:** They are mostly located in urban districts near business centre, main customer source is business travelers working on international trade, finance, insurance, navigation and shipping, they have better economic condition and higher educational level so they value manners, status and they are not sensitive to price. Commercial hotel value their appearance, the in-house facilities, it has to be magnificent, the guest room and restaurant should be in higher level, all types of service facilities, especially those for commercial affairs should be complete, such as IDD, telex, meeting room, boardroom, business service center, secretary services, etc. (Ruan, 1994).
- **Holiday hotel:** Their main customer source is visitors for travel or holiday. Far from noisy cities, it situates at the seashore, mountain district, hot spring, island, and forests, it would provide many entertainment items, such as skiing, equitation, hunting, fishing, boating, diving, surfing, golf, tennis to attract visitors, its operation is divided into peak and dull season, and the main purpose is health and leisure (Ruan, 1994).

• **Definition of Motel:** It is common to see them along the freeways of Europe and America, in the early stage, it has very simple facilities and the scale is very small, most of them only have guest rooms, there is no restaurant or bars, the main guest source is driving travelers. Nowadays, its facilities improve a lot, it tends to be luxurious, and most could provide modern integrated services (Ruan, 1994).

3. Research Method

This paper uses questionnaires to study the guests in different types of hotels in Taiwan from July to November, 2007, and the international tourism commercial hotel with more than 40% of guest room usage rate, the international tourism holiday hotel with more than 12% of guest room usage rate, motels with more than 40 rooms. The investigation is conducted in mailed questionnaire and convenience sampling.

3.1 Design of Questionnaire

This research gathers and studies the documentaries relevant to this research topic, it uses SERVQUAL scale proposed by Parasuraman *et al.* (1988) to design proper questionnaire items and then compile preliminary questionnaire based on the property, characters, and the investigated objects of different types of hotels. There is limited data about service quality items, the author is afraid that the questionnaire might be incomplete, therefore the author arranges and modifies the questionnaire and sorts out the definition for different aspects of the questionnaire as well as service quality item after the discussion with famous domestic experts on hotel industry. All questionnaire items are designed by Likert 5-point scale (interval scale), the judging standards is divided into very important, important, common, unimportant, very unimportant five degrees, they are given 5~1 score, higher score represents higher evaluation degree. On the contrary, lower score represents lower emphasizing degree on service quality, the filler would answer the questions in the questionnaire, and they would choose proper scale in the five-point variable method to complete questionnaire, then the questionnaire is finalized, the items in the questionnaire are listed in Table 1, Table 2 and Table 3.

3.2 Pretesting Questionnaire

Pretesting the finalized questionnaire, the tested customers are those who once lived in all kinds of hotels and they are selected in random sampling way, 10 are selected from each type; altogether 30 customers would be viewed as the pretesting objects for the questionnaire. Generally speaking, Cuieford (1965) indicated that Cronbach's α value higher than 0.7 represents high reliability, Table 4 shows the observed reliability results, all α values are higher

Table 1. Judgment aspects and items for service quality of holiday hotels

Aspect	Quality items
Tangible Aspect	1. Hotel scale (room numbers) and image 2. Location and charming scenery 3. Fashionable and modern decorations and ornaments, the customers could feel special and valuable 4. Perfect room services which could meet customers' requirements 5. Intimate service guide 6. Provided leisure and recreational facility 7. Carefully designed activities 8. Diversified food and drinks 9. Clean, comfort and bright washroom between floors or at the corners 10. Convenient and secure parking space 11. Service listed in the price list, reasonable facility charges 12. Trim and clean clothes and looks of service staff, fully representation of the profess-ional image of enterprise
Reliability Aspect	1. Quiet, clean, secure and pleasant environment 2. Emergency equipments 3. Insurance of personnel and property security of customers 4. Service center directs all services, which enhances communication and service efficiency 5. The provided services match with the advertisements, informing customers the benefits, and special prices information. 6. Service staff could implement their commitments to the customers at the first time 7. Rapid and correct booking, check-out or closing procedure provided by Service staff 8. The service staff could delivery the required services to customers
Reactivity Aspect	1. Service staff would instruct the customers to use various services and equipments 2. Service staff work on maintain the services without any shortcomings 3. Service staff files customer data to remember and call the name of customers gently, so that the customer would feel they are respected. Service staff could hand situations and accidents rapidly and effectively. 4. Channel to deal with customer complaints and opinions, instant disposal 5. Counter service staff has diversified developments. 6. Counter service staff have keen observation, they could master the movement of each customer
Assurance Aspect	1. Service staff would learn about, care for, and help to solve the problems initiatively. 2. Periodical maintenance of all facilities and equipments 3. Customers could feel secure and satisfied with services provided by service staff 4. Service staff familiar with different languages would be in charge of taking in customers 5. Gentle and kind attitude of service 6. Service staff possess specialized knowledge and skill 7. Hotel would hold relevant training activities to improve the learning capacity and growth of service staff so that they could provide better service
Empathy Aspect	1. Interactions with customers 2. Sovereignty of the consumer logos, put oneself into the skin of customers 3. Services could meet customer requirements 4. Service staff would provide special services for the individual demand of customer 5. Service staff would create the services to meet customer requirement before customers ask 6. Service staff would make customers enjoy the treatment of honored guest; the customers could also feel tender care. 7. Providing reservation services 8. Providing car rental and driver connection services 9. Providing surprises and special care for the customers

Table 2. Judgment aspects and items for service quality of commercial hotels

Aspect	Quality items
Tangible Aspect	1. Hotel scale (room numbers) and image 2. Fashionable and modern decorations and ornaments, the customers could feel special and valuable. 3. Perfect and comfort house-keeping which could meet customers' requirements 4. Intimate service guide 5. Providing leisure and recreational facilities 6. Diversified food and drinks 7. Clean, comfort and bright washroom between floors or at the corners 8. Convenient and secure parking space 9. Service listed in the price list, reasonable facility charges 10. Trim and clean clothes and looks of service staff, fully representation of the professional image of enterprise 11. Different types of meeting rooms and meeting halls, perfect sound insulation and high-tech vision conference equipments 12. Perfect facilities
Reliability Aspect	1. Clean and pleasant environment 2. Emergency equipments 3. Insurance of personnel and property security of customers 4. Service center directs all services, which enhances communication and service efficiency 5. The services match with the advertisements, informing customers the benefits, and special prices information. 6. Service staff could implement their commitments to the customers at the first time 7. Rapid and correct booking, check-out or closing procedure provided by Service staff 8. The service staff could delivery the required services to customers
Reactivity Aspect	1. Service staff would instruct the customers to use various services and equipments 2. Service staff work on maintain the services without any shortcomings 3. Service staff files customer data so that they could remember and call out the customers' name gently, so that the customer would feel they are respected. 4. Service staff could hand situations and accidents rapidly and effectively. 5. Channel to deal with customer complaints and opinions, instant disposal 6. Counter service staff has diversified developments. 7. Counter service staff have keen observation, they could master the movement of each customer
Assurance Aspect	1. Service staff would learn about, care for, and help to solve the problems initiatively. 2. Periodical maintenance of all facilities and equipments 3. Customers could feel secure and satisfied with services provided by service staff 4. Service staff familiar with different languages would be in charge of taking in customers 5. Gentle and kind attitude of service 6. Service staff possess specialized knowledge and skill 7. Hotel would hold relevant training activities to improve the learning capacity and growth of service staff so that they could provide better service
Empathy Aspect	1. Interactions with customers 2. Sovereignty of the consumer logos, put oneself into the skin of customers 3. Services could meet customer requirements 4. Service staff would provide special services for the individual demand of customer 5. Service staff would create the services to meet customer requirement before the customers ask 6. Service staff would make customers enjoy the treatment of honored guest; the customers would also feel tender care. 7. Providing reservation services 8. Providing car rental and driver connection services 9. Providing surprises and special care for the customers

Table 3. Judgment aspects and items for service quality of motels

Aspects	Quality items
Tangible Aspect	1. Hotel scale (room numbers) and image 2. Fashionable and modern decorations and ornaments, the customers could feel special and valuable. 3. House-keeping, interface devices and multi-channel vision, free and perfect audio and visual enjoyments, which could also meet the diversified requirements of customers 4. Intimate service guide 5. Leisure and recreational facilities 6. Restaurants would provide diversified food and drinks for customers 7. Exclusive and secure parking space 8. Service listed in the Price list, reasonable facility charges 9. Trim and clean clothes and looks of the service staff, fully representation of the professional image of enterprise
Reliability Aspect	1. Elegant, clean and pleasant environment 2. Secure position with favorable privacy 3. Emergency equipments 4. Insurance of personnel and property security of customers 5. Service center directs all services, which enhances communication and service efficiency 6. The provided services match with the advertisements, informing customers the benefits, and special prices information. 7. Service staff could implement their commitments to the customers at the first time 8. Rapid and correct booking, check-out or closing procedure provided by Service staff 9. The service staff could delivery the required services to customers
Reactivity Aspect	1. Service staff would instruct the customers to use various services and equipments 2. Service staff work on maintain the services without any shortcomings 3. Service staff files customer data so that they could name the customers gently, so that the customer would feel that they are respected 4. Service staff could hand situations and accidents rapidly and effectively. 5. Channel to deal with customer complaints and opinions, instant disposal 6. ounter service staff has diversified developments. 7. Counter service staff have keen observation, they could master the movement of each customer
Assurance Aspect	1. Service staff would learn about, care for, and help to solve the problems initiatively. 2. Periodical maintenance of all facilities and equipments 3. Customers could feel secure and satisfied with services provided by service staff 4. Gentle and kind attitude of service 5. Service staff possess specialized knowledge and skill 6. Hotel would hold relevant training activities to improve the learning capacity and growth of service staff so that they could provide better service
Empathy Aspect	1. Interactions with customers 2. Sovereignty of the consumer logos, put oneself into the skin of customers 3. services could meet customer requirements 4. Service staff would provide special services for the individual demand of customer 5. Service staff would create the services to meet customer requirement before the customers ask 6. Service staff would make customers enjoy the treatment of honored guest, the customers would also feel the thoughtfulness and tender care of the hotel. 7. Reservation services

than 0.9, which meets the basic requirements of internal consistency for questionnaire, it is a good-designed questionnaire.

Table 4. The Cronbach's α value of pretesting questionnaire

Questionnaire type	Cronbach's α
Holiday hotel	0.9230
Commercial hotel	0.9380
Motel	0.9321

3.3 Handing Out and Recovering of the Questionnaire

The pretesting shows that three types of questionnaire scale have shown high reliability level, for the handing out of questionnaire, 50 pieces of each type are handed to all classes of hotels, all together 150 pieces, 66 pieces are recovered, 66 pieces are valid. For the lodging customers, 150 pieces of each type are handed out, altogether 450 pieces, 408 pieces are recovered, 404 pieces are valid, and 4 invalid pieces are selected. Table 5 and Table 6 show the recovering statistic of each sample.

Table 5. Recovering status of the questionnaire handed out to hotels

Questionnaire type	Handed pieces	Valid recovering questionnaire	Valid recovery rate
Holiday hotel	50	27	54.0%
Commercial hotel	50	23	46.0%
Motel	50	16	32.0%
Summary	150	66	44.0%

Table 6. Recovering status of the questionnaire handed out to lodging customers

Questionnaire type	Handed pieces	Valid recovering questionnaire	Valid recovery rate
Holiday hotel	150	142	94.6%
Commercial hotel	150	130	86.6%
Motel	150	132	88.0%
Summary	450	404	89.8%

4. Research Results

4.1 Questionnaire Reliability and Validity Verification

This research uses Cronbach's α coefficient to verify internal consistency of service quality items in the questionnaire, larger α value means larger relativity among the items of this as-

pect, the internal consistency is higher. Cuieford (1965) suggested that Cronbach's a value higher than 0.7 represents high reliability, the value less than 0.35 represents low reliability, and should be deleted. Table 7 shows reliability results of this research. The reliability analysis of the questionnaires used in this research shows high reliability, it is trustworthy. This questionnaire refers to SERVQUAL scale proposed by PZB, the three scholars and it also combines the unique features, its basis is a hotel services quality scale. The author further collects opinions and information from some consultants and customers to modify the scale, and then amends it with the help of pretesting results, sorts out aspect definition and service quality item suitable for this research, it is trustworthy.

Table 7. Summary of questionnaire reliability

Questionnaire type	Number of items	Cronbach's a of hotels	Cronbach's a of customers
Holiday hotel	43	0.9640	0.9527
Commercial hotel	43	0.9655	0.9511
Motel	38	0.9558	0.9634

4.2 Trait Analysis of Samples

It uses narrative statistical method to present scores of different types of hotels, lodging customers, different service quality aspects, and general quality item. By this, it finds out the items which are valued by different types of hotels and customers, it also lists the quality aspect with highest average score to find out the item which the industry pays most attention to and item that the customers pay most attention to, the analytical result is in Tables 8~12. In tangible aspect, holiday hotels value trim and clean clothes of the service staff, fully represent of the professional image and intimate service guide most. Commercial hotels value trim and clean clothes of the service staff, fully represent of hotel's professional image, complete facilities, convenient and safe parking space most; motels value trim and clean clothes of the service staff, fully represent of hotel's professional image, exclusive and secure parking space.

In reliability aspect, holiday hotel value emergency equipments, insurance of personal, and property security of the customers, quiet, clean, secure, and pleasant environment. Commercial hotels value insurance of personal and property security of the customers, speedy and correct reservation, check-in, check-out or closing procedures, clean and pleasant environment. Motels value elegant, neat, and pleasant environment, insurance of personal and property security of the customers. In reactivity aspect, holiday hotel values channel to deal with customer complaints and opinions, instant disposal, the service staff could handle various situations and accidents rapidly and effectively, pluralized developments of counter service staff. Commercial hotel values the channel to deal with customer complaints and opinions, instant disposal,

pluralized development of counter service staff, the service staff could handle situations and accidents rapidly and effectively. Motels value service staff's ability to handle situations and accidents rapidly and effectively, the counter service staff has keen observation ability to master the movements of each customer, the channel to deal with customer complaints and opinions, instant disposal, the service staff would try to maintain the service level without any shortcomings.

In assurance aspect, holiday hotels value genial and kind attitude of service, specialized knowledge and skill of the service staff, periodical maintenance of all equipments; commercial hotels value that customer could feel secure and pleased after receiving the services, genial and kind attitude of service. Motels value genial and kind attitude of service, and customers could feel secure and pleased after receiving the services. In empathy aspect, holiday hotel values the reservation service, sovereignty of the consumer logos, and they would put themselves in the skin of customers. The commercial hotel values the interaction with customers, sovereignty of the consumer logos, and they would put themselves in the skin of customers, the reservation service, the customers will feel as the honored guests and the tender care; motels value the sovereignty of the consumer logos, customers will feel themselves as the honored guests and the tender care.

In tangible aspect, the customers in holiday hotels value the services listed in the price list, reasonable charging of facilities, clean, comfort, and bright washroom between different floors or at the corner. The customers at commercial hotels value convenient and secure parking space, the services listed in the price list, reasonable charging of facilities; the customers at motels value the services listed in the price list, reasonable charging of facilities and exclusive secure parking space. In reliability aspect, customers at holiday hotel value insurance of personal and property security, emergency equipments; customers at commercial hotels value clean and pleasant environment, emergency equipments; the customers at motels value insurance of personal and property security, emergency equipments.

In reactivity aspect, customs at holiday hotels value the service staff could handle situations and accidents rapidly and effectively, channel to deal with customer complaints and opinions, instant disposal. Customers at commercial hotels value channel to deal with customer complaints and opinions, instant disposal, service staff could handle situations and accidents rapidly and effectively; customers at motels value service staff could handle situations and accidents rapidly and effectively, channel to deal with customer complaints and opinions, instant disposal. In assurance aspect, the customers at holiday hotels value periodical maintenance of the equipments, genial and kind attitude of service; customers at commercial hotels value periodical maintenance of the equipments, the genial and kind attitude of service; the customers at motels value periodical maintenance of the equipments, the genial and kind attitude of service.

In empathy aspect, customers at holiday hotels value the reservation service, the sovereignty of the consumer logos, and the service staff could put themselves in the skin of customers.

The customers of commercial hotels value reservation service, the sovereignty of the consumer logos, and the service staff could put themselves in the skin of customers. The customers at motels value reservation service, sovereignty of the consumer logos, the service staff could put themselves in the skin of customers. Score of holiday hotel in general service quality aspect shows that it values the first three items mostly: emergency equipments, insurance of personal and property security of the customers, quite, clean, secure, and pleasant circumstance, genial and kind attitude of service, trim and clean clothes of service staff, fully representation of the professional image of the hotels, channel to deal with customer complaints and opinions, instant disposal. Score of commercial hotel shows that it values the first three items mostly, insurance of personal and property security of the customers, customers would feel secure and satisfied after receiving the services, channel to deal with customer complaints and opinions, speedy and correct reservation, check-out or closing procedures, interactions with customers, sovereignty of the consumer loge, putting themselves into the skins of the customers, genial and kind attitude of service, clean and pleasant environment, reservation services, the pluralized development of counter service staff, the customers would feel as the honored guest and the tender care, trim and clean clothes of service staff, fully representation of the hotel's professional image, the service staff has the ability to deal with situations and accidents rapidly and effectively with emergency equipments.

Score of motels show the they value the first three items mostly, genial and kind attitude of service, clean, elegant, and pleasant environment, service staff has the ability to deal with situations and accidents rapidly and effectively, insurance of personal and property security of the customers, customers would feel secure and satisfied after receiving services, counter service staff have keen observation abilities, they could master the actions of each customer, trim and clean clothes of service staff, channel to deal with customer complaints and opinions, instant disposal, service staff could keep on the services without any shortcoming. They could perform their commitments to the customers at the first time, emergency equipments and periodical maintenance of all facilities.

Score of customers at holiday hotels shows that they value the first five items mostly, insurance of personal and property security, emergency equipments, quite, clean, secure, and pleasant environment, periodical maintenance of all facilities, genial and kind attitude of service, services listed in price list, reasonable facility charging. Score of customers at commercial hotels shows that they value the first five items mostly, clean and pleasant environment, emergency equipments, periodical maintenance of all facilities, insurance of personal and property security, genial and kind attitude of service. Score of customers at motels shows that they value the first five items mostly, insurance of personal and property security, emergency equipments, services listed in price list, reasonable facility charging, periodical maintenance of all facilities, elegant, clean, and pleasant environment, speedy and correct reservation, check-out or closing procedures.

Table 8. Sorting table of the scores of each item in different types hotels

Aspect	Hotel type	Service quality item	Average
Tangible Aspect	Holiday hotel	Trim and clean clothes and looks of the service staff, fully representation of the professional image of enterprise	4.7778
		Intimate service guide	4.6296
	Commercial hotel	Trim and clean clothes and looks of the service staff, fully representation of the professional image of enterprise	4.6957
		Perfect facilities	4.6522
		Convenient and secure parking space	4.6522
	Motel	Trim and clean clothes and looks of the service staff, fully representation of the professional image of enterprise	4.8125
		Exclusive and secure parking space	4.6250
Reliability Aspect	Holiday hotel	Emergency equipments	4.8519
		Insurance of personnel and property security of customers	4.8148
		Quiet, clean, secure and pleasant environment	4.8148
	Commercial hotel	Insurance of personnel and property security of customers	4.7826
		Rapid and correct booking, check-out or closing procedure provided by Service staff	4.7826
		Clean and pleasant environment	4.7391
	Motel	Elegant, clean, and pleasant environment	4.8750
		Insurance of personnel and property security of customers	4.8125
Reactivity Aspect	Holiday hotel	Channel to deal with customer complaints and opinions, instant disposal	4.7037
		Service staff could hand situations and accidents rapidly and effectively.	4.7037
		Diversified developments of counter service staff	4.6296
	Commercial hotel	Channel to deal with customer complaints and opinions, instant disposal	4.7826
		Diversified developments of counter service staff	4.6957
		Service staff could hand situations and accidents rapidly and effectively.	4.6957
	Motel	Service staff could hand situations and accidents rapidly and effectively.	4.8125
		Counter service staff have keen observation, they could master the movement of each customer	4.8125
		Channel to deal with customer complaints and opinions, instant disposal	4.7500
		Service staff work on maintain the services without any shortcomings	4.7500
Assurance Aspect	Holiday hotel	Gentle and kind attitude of service	4.7778
		Service staff possess specialized knowledge and skill	4.7037
		Periodical maintenance of all facilities and equipments	4.7037
	Commercial hotel	Customers could feel secure and satisfied with services provided by service staff	4.7826
		Gentle and kind attitude of service	4.7391
	Motel	Gentle and kind attitude of service	4.8750
		Customers could feel secure and satisfied with services provided by service staff	4.8125
Empathy Aspect	Holiday hotel	Reservation services	4.7037
		Sovereignty of the consumer logos, put oneself into the skin of customers	4.6296
	Commercial hotel	Interactions with customers	4.7391
		Sovereignty of the consumer logos, put oneself into the skin of customers	4.7391
		Reservation services	4.6957
		Service staff would make customers enjoy the treatment of honored guest; the customers would also feel tender care.	4.6957
	Motel	Sovereignty of the consumer logos, put oneself into the skin of customers	4.6875
		Service staff would make customers enjoy the treatment of honored guest, the customers would also feel the thoughtfulness and tender care of the hotel.	4.5625

Table 9. Sorting table of the scores of each item among customers living in different types hotels

Aspect	Hotel type	Service quality item	Average
Tangible Aspect	Holiday hotel	Service listed in the Price list, reasonable facility charges	4.5070
		Clean, comfort, and bright washroom between floors or at the corners	4.4085
	Commercial hotel	Convenient and secure parking space	4.4769
		Service listed in the price list, reasonable facility charges	4.4385
	Motel	Service listed in the price list, reasonable facility charges	4.5909
		Exclusive and secure parking space	4.4545
Reliability Aspect	Holiday hotel	Insurance of personnel and property security of customers	4.6408
		Emergency equipments	4.5986
	Commercial hotel	Clean and pleasant environment	4.7000
		Emergency equipments	4.6385
	Motel	Insurance of personnel and property security of customers	4.6667
		Emergency equipments	4.6591
Reactivity Aspect	Holiday Hotels	Service staff could hand situations and accidents rapidly and effectively.	4.4648
		Channel to deal with customer complaints and opinions, instant disposal	4.4296
	Commercial Hotel	Channel to deal with customer complaints and opinions, instant disposal	4.5077
		Service staff could hand situations and accidents rapidly and effectively	4.4538
	Motel	Service staff could hand situations and accidents rapidly and effectively	4.4015
		Channel to deal with customer complaints and opinions, instant disposal	4.3561
Assurance Aspect	Holiday Hotel	Periodical maintenance of all facilities and equipments	4.5211
		Gentle and kind attitude of service	4.5070
	Commercial Hotel	Periodical maintenance of all facilities and equipments	4.6077
		Gentle and kind attitude of service	4.5692
	Motel	Periodical maintenance of all facilities and equipments	4.5530
		Gentle and kind attitude of service	4.4242
Empathy Aspect	Holiday Hotel	Reservation services	4.4085
		Sovereignty of the consumer logos, put oneself into the skin of customers	4.3239
	Commercial Hotel	Reservation services	4.5308
		Sovereignty of the consumer logos, put oneself into the skin of customers	4.3846
	Motel	Reservation services	4.3561
		Sovereignty of the consumer logos, put oneself into the skin of customers	4.3409

Table 10. Sorting table of general item scores among different types of hotels

Hotel type	Service quality item	Average
Holiday Hotels	Emergency equipments	4.8519
	Insurance of personnel and property security of customers	4.8148
	Quiet, clean, secure and pleasant environment	4.8148
	Gentle and kind attitude of service	4.8148
	Trim and clean clothes and looks of the Service staff, fully representation of the professional image of enterprise	4.7778
	Channel to deal with customer complaints and opinions, instant disposal	4.7778
Commercial Hotels	Insurance of personnel and property security of customers	4.7826
	Customers could feel secure and satisfied with services provided by service staff	4.7826
	Channel to deal with customer complaints and opinions, instant disposal	4.7826
	Rapid and correct booking, check-out or closing procedure provided by service staff	4.7826
	Interactions with customers	4.7391
	Sovereignty of the consumer logos, put oneself into the skin of customers	4.7391
	Gentle and kind attitude of service	4.7391
	Clean and pleasant environment	4.7391
	Reservation services	4.6957
	Diversified developments of counter service staff	4.6957
	Service staff would make customers enjoy the treatment of honored guest; the customers would also feel the tender care.	4.6957
	Trim and clean clothes and looks of the Service staff, fully representation of the professional image of enterprise	4.6957
	Service staff could hand situations and accidents rapidly and effectively	4.6957
	Emergency equipments	4.6957
Motels	Gentle and kind attitude of service	4.8750
	Elegant, clean and pleasant environment	4.8750
	Service staff could hand situations and accidents rapidly and effectively	4.8125
	Insurance of personnel and property security of customers	4.8125
	Customers could feel secure and satisfied with services provided by service staff	4.8125
	Counter service staff have keen observation, they could master the movement of each customer	4.8125
	Trim and clean clothes and looks of the Service staff, fully representation of the professional image of enterprise	4.8125
	Service staff possess specialized knowledge and skill	4.7500
	Channel to deal with customer complaints and opinions, instant disposal	4.7500
	Service staff work on maintain the services without any shortcomings	4.7500
	Service staff could implement their commitments to the customers at the first time	4.7500
	Emergency equipments	4.7500
	Periodical maintenance of all facilities and equipments	4.7500

Table 11. Sorting table of general item scores among customers living in different types of hotels

Hotel type	Service quality item	Average
Holiday Hotels	Insurance of personnel and property security of customers	4.6408
	Emergency equipments	4.5986
	Quiet, clean, secure, and pleasant environment	4.5775
	Periodical maintenance of all facilities and equipments	4.5211
	Gentle and kind attitude of service	4.5070
	Service listed in the price list, reasonable facility charges	4.5070
Commercial Hotels	Clean and pleasant environment	4.7000
	Emergency equipments	4.6385
	Periodical maintenance of all facilities and equipments	4.6077
	Insurance of personnel and property security of customers	4.6000
	Gentle and kind attitude of service	4.5692
Motels	Insurance of personnel and property security of customers	4.6667
	Emergency equipments	4.6591
	Service listed in the Price list, reasonable facility charges	4.5909
	Periodical maintenance of all facilities and equipments	4.5530
	Elegant, clean and pleasant environment	4.4848
	Rapid and correct booking, check-out or closing procedure provided by Service staff	4.4848

Table 12. Average score of different types of hotels and customers

Hotel type	Aspect	Number of Items	Average value of the industry	Average value of Customers
Holiday Hotels	Tangible Aspect	12	4.4107(5)	4.1944(3)
	Reliability Aspect	8	4.7056(1)	4.4212(1)
	Reactivity Aspect	7	4.5504(3)	4.0400(5)
	Assurance Aspect	7	4.6033(2)	4.2042(2)
	Empathy Aspect	9	4.4241(4)	4.0644(4)
Commercial Hotels	Tangible Aspect	12	4.3878(5)	4.1415(4)
	Reliability Aspect	8	4.6487(1)	4.4648(1)
	Reactivity Aspect	7	4.6335(2)	4.1283(5)
	Assurance Aspect	7	4.5904(4)	4.3108(2)
	Empathy Aspect	9	4.5948(3)	4.1600(3)
Motels	Tangible Aspect	9	4.3400(5)	4.1240(4)
	Reliability Aspect	9	4.6888(2)	4.4201(1)
	Reactivity Aspect	7	4.6075(3)	3.9762(5)
	Assurance Aspect	6	4.6988(1)	4.2123(2)
	Empathy Aspect	7	4.3850(4)	4.1242(3)

For the average value of the five aspects, for the industry, the reliability has the highest average value in holiday hotels, and then assurance aspect; reliability has the highest score in commercial hotels, then reactivity aspect; assurance has the highest score in motels, then reliability aspect. For the customers, the reliability has the highest average value in holiday hotels, and then assurance aspect; reliability has the highest score in commercial hotels, then assurance aspect; reliability has the highest score in motels, then assurance aspect. Different items or the general service quality item has different scores in the evaluation of the hotels of different types and their customers. Their evaluation sequences are also different, so is the average value, even the hotels and customers of the same type have different views on service quality aspects and the valuation degree.

4.3 Analysis of Service Quality Gaps Among Different Types of Hotels and Their Customers

This research uses independent sample t-test to verify whether there are significant gaps between hotels of different types and their customers on service quality aspect. The analytical

Table 13. Contrast of the industry' emphasizing degrees on service quality aspects

Aspect	Hotel type	T-test with equal average number		
		Average dis-tinction	Standard Deviation	Significance
Tangible Aspect	Holiday type V.S Commercial type	2.281E-02	0.1060	0.831
Reliability Aspect		5.696E-02	0.1112	0.611
Reactivity Aspect		-8.3276E-02	0.1336	0.536
Assurance Aspect		1.311E-02	0.1097	0.905
Empathy Aspect		-0.1703	0.1285	0.191
Aspect	Hotel type	T-test with equal average number		
		Average dis-tinction	Standard Deviation	Significance
Tangible Aspect	Commercial type V.S Motel	4.740E-02	0.1378	0.733
Reliability Aspect		-4.0761E-02	0.1273	0.751
Reactivity Aspect		2.640E-02	0.1373	0.849
Assurance Aspect		-0.1079	0.1177	0.365
Empathy Aspect		0.2103	0.1478	0.163
Aspect	Hotel type	T-test with equal average number		
		Average dis-tinction	Standard Deviation	Significance
Tangible Aspect	Holiday type V.S Motels	7.022E-02	0.1281	0.587
Reliability Aspect		1.620E-02	0.1267	0.899
Reactivity Aspect		-5.6878E-02	0.1549	0.715
Assurance Aspect		-9.4742E-02	0.1176	0.425
Empathy Aspect		3.994E-02	0.1629	0.807

Table 14. Contrast of the customers' emphasizing degree on service quality aspects

Aspect	Hotel type	T-test with equal average number		
		Average distinction	Standard Deviation	Significance
Tangible Aspect	Holiday type V.S Commercial Type	5.258E-02	5.422E-02	0.333
Reliability Aspect		-4.3486E-02	5.795E-02	0.454
Reactivity Aspect		-8.8330E-02	6.636E-02	0.184
Assurance Aspect		-0.1068	6.291E-02	0.091
Empathy Aspect		-9.5666E-02	6.517E-02	0.143

Aspect	Hotel type	T-test with equal average number		
		Average distinction	Standard Deviation	Significance
Tangible Aspect	Commercial Type V.S Motels	1.793E-02	6.380E-02	0.779
Reliability Aspect		4.247E-02	5.971E-02	0.478
Reactivity Aspect		0.1524	7.554E-02	0.045
Assurance Aspect		9.887E-02	7.072E-02	0.163
Empathy Aspect		3.537E-02	7.379E-02	0.632

Aspect	Hotel type	T-test with equal average number		
		Average distinction	Standard Deviation	Significance
Tangible Aspect	Holiday Types V.S Motels	7.051E-02	5.932E-02	0.236
Reliability Aspect		-1.0196E-03	6.188E-02	0.987
Reactivity Aspect		6.405E-02	7.171E-02	0.373
Assurance Aspect		-7.8959E-03	7.076E-02	0.911
Empathy Aspect		-6.0296E-02	7.168E-02	0.401

results: Table 13 shows that there is no significant gap among different types of hotels on the service quality aspects; that is to say, they value all aspects and all items. Table 14 shows that there is no obvious gap in the service quality aspects among the customers in different types of hotels basically, however, the customers in commercial hotels and models have obvious evaluations gap in the reactivity aspect of service quality.

5. Conclusions and Suggestions

This research discusses the evaluation gaps among the hotels of different types and their customers hoping the result could contribute to relevant hotels as reference. This paper presents the following conclusions and recommendations based on its analysis.

5.1 Conclusions

This research reaches the following conclusions after investigating different classes of hotels and their customers.

(1) Hotels of different types and their customers have very high request on all aspects and general service quality items, that is to say, the industry and customers would not change their requests on service quality just because different hotel types.

(2) Although both the industry and customers pay high attention to all quality aspects, the items they value mostly are different, so are the emphasizing degrees. For the industries, they believe the different hotel types lead to different quality considerations, operation manners and execution ways, therefore the perceived gap is generated; while the customers have different requests and feelings towards service quality owing to their different lodging purpose and requirements, and then perceived gap is generated.

(3) The valuation degree on items and aspects of service quality between hotels and customers of the same type also differ, then perceived gap emerges. Different feelings, perceived degree on service quality, different considerations, individual requirements of the industry and customers, their different requirements on service quality, and personal preference all lead to their different evaluation gap in the service quality item. If the industry could provide and improve their services quality based on the customer's evaluations on service quality items, then their perceived gap would become smaller, the perceived gap in the service quality between hotels and their customers would shorten and the hotels could provide optimal services and qualities for the customers.

(4) Hotels of three types value reliability, reactivity and assurance, these three aspects. The lodging customers pay much attention to reliability and assurance aspect. This shows that perceived gap between the industry and customers on service quality aspects is small, the industry pays more attention to reactivity aspect than the customers do, the industry's consideration on service quality shows this point, and they evaluate more details hoping to provide better service quality for customers. The evaluation sequence of hotels of different types and the customers are consistent, they all value reliability and assurance aspect.

(5) The variance analysis of the evaluation degree on service quality aspects among hotels of three types and their lodging customers shows that there is no significant gap in service quality aspects. The industry believes this consistence is owing to all hotels have certain level of service quality requests; manager of the hotel would value all service quality aspects and items. They would do their best in appearance, scale, staff, investment, etc., they would provide the best, and most comfort services, and works on meeting the customers' requirement in order to attract more customers. The industry values various of facilities and equipments, entertainment and equipments, specialized knowledge and skill training of service staff. Therefore, the opinions of hotels of different types on service quality become more and more consistent with the improvement of our society. For customers, their opinions are identical, they have high demand on service quality whatever type of hotels, they always wish they could receive the serv-

ices, which could meet their requirements mostly, therefore, they value all service quality aspects. However, customers in commercial hotels and models have different evaluations on the reactivity aspect of service quality. It is usually believed that the customers living in commercial hotels have high request on service quality items, therefore their evaluation degree is higher, for customers living in motels, and their attentions on reactivity aspect of service quality items are not as obvious as that living in commercial hotels. This is because the residence time of most motel customers is short, and they do like to be disturbed, therefore their request on service quality seems less obvious. Therefore, in their evaluation, the channel to express their opinions, the service staff could remember the customers' name, their observation ability, and their ability to deal with various situations play a less important role than that of commercial hotels. This has leaded to an obvious gap in reactivity aspect among customers living in commercial hotels and motels.

This paper analyzes the aspects and items that hotels of different types and their customers value, and it further proves that different hotel types would not influence requirements of hotels and customers on services quality; it also finds out that these two differ slightly in quality item and the evaluation degree. The above paper has listed the possible reasons that might lead to the perceived gap in service quality between hotels of different types and their customers. This research hopes that the key points of each item sorted out by analysis could work as the improvement directions. It hopes this could provide certain references for operating management, the managers could listen to the voice of customers, learn their requirements, improve service quality based on service quality evaluated by the customers, so their service quality perceived gap could be consistent, the perceived gap in service quality among hotels and lodging customers would be shortened.

5.2 Suggestions

This research presents the following suggestions based on above findings:

(1) In the context of rapid-developed hotel industry, the industry should develop their hardware and soft ware facilities based on hotel feature, strengthen and maintain the inner service quality to improve its competition capacity besides sustain their competitive power on market price to attract more customers. This research shows that all hotels should highlight their requirements on service quality. That is to say, the quality requirements should be the same whatever the hotel type, so that the industry could provide more suitable service quality for customers based on the hotel feature. They should learn their customers' individual demands and requests at any moment so that they could provide optimal services and quality. Thus, a higher customer satisfaction degree and re-lodge expectations are created.

(2) Different types of hotels and their customers have different perceived gaps on the average degree of service quality. It suggested that the industry should provide and improve their service quality based on the customer's evaluation on service quality items to reduce the possible gaps between them, therefore their perceived gaps would be consistent, and then the perceived gap of the service quality between hotels and their customers would be cut short.

References

1. Lyu, Y. H.(1999), *Tourism Management*, Vol. 1, Taipei: Gui Lu, Taiwan.
2. Ruan, C. C.(1994), "Management Pattern and Performance of International Tourism-Chinese, American and Japanese Hotels in Taiwan," Diss. Department of Tourism Management, Chinese Culture University, Taiwan.
3. He, Y. C. and Su, Y. H.(1995), "Comparison of Customer Satisfaction Pattern and Service Quality in Service Marketing," *Fu Jen Management Review*, Vol. 2, No. 2, pp. 37-64.
4. Lin, Y. C.(1996), "The Determinant model and effects of customer satisfaction for auto-mobile in the Taiwan Area-An Empirical Study," Diss. College of Commerce National Taiwan University, Taiwan.
5. Shih, H. Y. and Chiang, D. H.(1997), *Hotel Management*, Taipei: Bai Tung Books, Taiwan.
6. Liu, C. Y.(1991), "Conception Pattern of Service Quality," *Taipei City Banks Monthly*, Taiwan, pp. 2-16.
7. Hsien, C. and Wu, C. H.(1997), *Tourism Management*, Taipei: Chung Wen Books, Taiwan.
8. Cuieford, J. P.(1965), Fundamental Statistics in Psychology and Education, New York: McGraw-Hill Inc.
9. Parasuraman, A., Zeithaml, V. A., and Berry, L. L.(1985), "A conceptual model of service quality and its implications for future research," *Journal of Marketing*, Vol. 49, No. 3, pp. 41-50.
10. Parasuraman, A., Zeithaml, V. A., and Berry, L. L.(1988), "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality," *Journal of Retailing*, Vol. 64, No. 1, pp. 12-40.