International Journal of
Organizational Innovation

PREDICTING AND EXAMINING CUSTOMERS' PERCEPTION OF SERVICE QUALITY ATTRIBUTES OF BUDGET HOTELS: AN EMPIRICAL INVESTIGATION FROM TAIWAN

Dr. Long-Yuan Lee

Department of Leisure and Sport Management, Cheng Shiu University,
Kaohsiung City, Taiwan. Tel: 886-6-235-0058.
No.840, Chenghu Rd., Niaosong Dist., Kaohsiung City 833, Taiwan (R.O.C.)
E-mail:lee15hb@yahoo.com

Dr. Chien-Ting Chiang*

Department of Tourism and Recreation, Cheng Shiu University,
No.840, Chenghu Rd., Niaosong Dist., Kaohsiung City 833, Taiwan (R.O.C.)
*Correspondence Author: Chechao888@yahoo.com.tw

Abstract

The present study uses customers' service quality and demographic characteristics as the theoretical basis to test the notable prospective effects of the various types of customers groups in term of anticipated service quality attributes in budget hotels. The study provides a brief summary of the research focus on service quality attributes and marketing segmentation conducted in each of hotels customer service practice areas. A survey of 366 residents in the Kaohsiung city in Taiwan was proposed to examine how the factors of service quality attributes are expected among customers in budget hotels. A novel research approach of the combined factor analysis (EFA) and K-mean Analysis means were applied in order to understand hotel visitors' perceptions of the service quality attributes relative to their budget hotel experiences. While the result of this paper is a beneficial platform, it now seems time to extend the research with the development of theoretical bases to gain greater understanding into consumer service quality and their expected hotel experience. It

25

was also aimed to developing an effective marketing program to satisfy customer and build customer higher leisure experience by identifying particular difference in the service quality of two groups of hotel visitors (seekers for effective problem-solving based service and seekers for trusted professionals based service). Finally, each market segment is identified with a descriptive name that invokes the crucial drivers behind consumer service quality in that subdivision.

Keywords: Customer service quality; Service Marketing; K-mean Analysis; Budget Hotel Industry

Introduction

There is a growing agreement within the Travel & Tourism's direct, indirect and induced impact approximately accounted for US$8.9 trillion contribution to the world's GDP and 10.3% of international GDP worldwide. It is one of the world's major and fastest growing industries (World Travel & Tourism Council: WTTC 2019). The hotel and tourism industry employs more than 260 million individuals worldwide, and job predictions in the industry remain worthy, according to the WTTC 2019. According to the Mobility Market Outlook on COVID-19, the global revenue for the travel and tourism industry will be an evaluated 396.37 billion U.S. dollars in 2020 - a decrease of around 42.1 percent from the previous year. Roughly, this is considerably lower than the original 2020 forecast of around 712 billion dollars.

The importance of the hotel industry is noticed as a tourism sector that greatly sensitive to the state of the economy (Mathur, & Dewani, 2015; Cibere, Basaran, & Kantarci, 2020). In an effort to generate economic revenge of hotel companies are likely to have higher fixed costs than variable costs. Research in this area has categorized budget hotels as an important and distinct segment in the travel and hospitality industry since mid of 1990s (Tajeddini, Martin & Ali, 2020). With a distinctive market position of offering good service quality and value for money, the significance of the budget hotel sector has successfully apprehended different customer segments.

In the ten years following that publication, scholars highlighted the practice of distribution management budget hotel performance, service

administration in budget hotels, or the influencing factors for customer satisfaction (Cibere, Basaran, & Kanarci, 2020; Tajeddini, Martin & Ali, 2020; Kele, Mohsin, & Lengler, 2017). The discussions of service quality dimensions in the literature have focused primarily on attempting to determine the relationships between various characteristics of modified service quality attributes or features of buyer consumption, otherwise the impact of service quality dimensions on customers' behavioral intentions (Jyoti, Mandhani, Nayak' & Parida,2020; Hapsari, Clemes, & Dean, 2016). Generally, past research has suggested that there is a positive relationship between consumer satisfaction and behavioural intentions toward service quality attributes (Mandhani, Nayak, & Parida, 2020; Hapsari, Clemes, & Dean, 2016). Therefore, we argue that the empirical findings from the related studies with service quality dimensions towards tourism and hospitality related service that can be rational viewed as foundation for improving the competitiveness in the long term in the hotel industry.

Taiwan government has make an effort to encourage local tourism industry by investing approximately US$1.018 billion at growing local tourism. Recent statistics suggest that the growth of the hotel industry in Taiwan over the past decades has been notable. Research studies have recognized that travelers be likely to spend a noteworthy amount of budget on tourism related products during their journeys (Wu & Lu, 2011). Yet, little research in service quality attributes in connection to marketing segmentation has been conducted in these budget hotels, which provides us with a purpose to study them in this research. The purpose of this article is to evaluate service quality attributes towards the budget hotel sector as a resource for managers and researchers on supporting good decision making in management.

The specific research objectives are:
(1) to examine the role of service quality attributes in explaining customers' needs towards the budget hotel sector; (2) to investigate factors of the role of service quality attributes as determinants of customers across recognized market segment groups; and (3) to explore the influence of demographic characteristics on actual service quality attributes.

Literature Review

Progress In Service Quality Dimensions

Examining customer service quality dimensions can help tourism and hospitality administrations improve their understanding of why people make the consumption decisions. It has also been noted that successfully being able to estimate perceived service performance from customer perspective and to apply that understanding is starting points to developing long-term customer retention, result in a long-term effectiveness for tourism management. In the literature, customer service quality is one part of perceived value of a product or service that has been explored, and it impacts on consumer satisfaction and behavioural intentions toward service industries (Esubalew, & Singh, 2020; Shah, Syed,& Raza, 2020). The evaluation of this service quality perception on consumer perceptions of service experience in relation to consumer satisfaction and behavioural intentions may assist service organizations in general to build good service in the service context.

SERVQUAL is a multi- dimensional research instrument that aims to capture customer expectations and awareness of a service through five common dimensions, namely, tangibles, reliability, responsiveness, assurance, and empathy.

SERVQUAL also can serve as an emulation of consumer attribute in relation to services that can be adapted to appropriate the attributes of a specific industry (Shah, Syed,& Raza, 2020; Moro, Lopes & Botelho, 2020). Within the literature much of the research has explored SERVQUAL and some other service quality instruments can be viewed as useful references to apprehension service quality attributes for studies that are based on using customer evaluations. Consumers rely on perceived attributes of a service to help them make an upcoming purchase decision.

It has been suggested that a negative customer service quality perception for a service is potentially create a dissatisfied consumer, because consumers may view a negative service experience as 'cost lost', which could have noticeable impact on their future buying behaviors (Moro, Lopes & Botelho, 2020; Yilmaz, 2020). As such customer service experience of opportunities for leisure, which can in-

27

clude exercise, will theoretically have various benefits to consumers and marketers.

Market Segmentation and Marketing Strategies

Market segmentation is a beneficial instrument in tactical marketing that help marketers identify their probable customers' desires through a greater understanding of the needs of homogeneous consumer subdivisions (Keller, 2008; Sarti, Darnall, & Testa, 2018; Cha & Park, 2019). Specifically, as Kotler, Armstrong & Cunningham (2008) suggest, market segmentation is the method that can provide enhanced information for marketers regarding consumers with different requirements. Market conjunction analysis can deliver a better understanding of the market construction that allows national destination tourism organizations to segment a country's markets and progress modified promotion strategies for different clusters of source markets (Song, Chang, & Song, 2019; Mahbubi, Uchiyama, & Hatanaka, 2019). Many recent studies stated that the interrelationships among service quality aspects can support transit officials in formulating effective strategies and investment plans related the passengers' requirements (Shah, Syed,& Raza, 2020; Moro, Lopes & Botelho, 2020).

It reaches this by understanding a market into smaller groups based on categorizing significant modifications in terms of patterns of each group. In another research, it is stated that a better understanding of how superior understanding of market segmentation can allow all companies to more accurately comprehend what their customers want or seek. When explaining why managers need to develop efficient and effective marketing strategies for each segment of the market, one should therefore consequently to improve the destination's competitive advantage (Akter, Gunase, & Hani, 2020).

Moreover, tourism development in the hotel industries tends to heighted in the tourist hotel industry and then few studies extend to understand economy hotels' areas. This purpose of the study is also mainly to examine the differences of customer service quality perception among various groups' hotel visitors conferring to their perceived attributes of service experience among economic hotels.

Methodology

Research Instrument And Data Collection

The proposed conceptual model was developed on the basis of the findings of the customer service quality regarding the hotel industry in previous research. This paper is constructed in two parts for assessing service quality regarding the hotel industry, first, the detail about the segmentation model is offered, and second, the effectiveness of the proposed measurement used for evaluating customer service quality is established with an empirical study in Taiwan. The proposed model in this study therefore aims to contribute to literature by employing the quality of the measurement used for evaluating customer service quality and five tourism experts were chosen to confirm the measurement variables from both perspectives of theoretical and management in tourism industries. As a result, this customers' service experience based questions were established based on the previous tourism literature (Moro, Lopes & Botelho, 2020; Lopes & Botelho, 2020). A 5-point scale was engaged to determine the attributes and preferences of each service quality

variable contributing to the process of customers' decision making, specifically regarding the respondent's current trip from budget hotels' customer perspective. The other existing scales that were used in this study include preferences of each service quality, overall consumer satisfaction and consumer behavioural intentions, using five-point scales.

Nunnally (1978) recommended an adequate sample size derived from the totality of usable questionnaires. He graded a sample size of 100 as being poor, 200 as fair, 300 as good quality, 500 as great and 1,000 as outstanding for guiding studies. Hence, the minimum sample size of this present research was $N = 366$ for conducting statistical analyses. A pre-test was subsequently conducted, using a convenience sampling technique on visitors ($n = 30$) with the purpose of checking on errors or other problems associated with the survey. The final questionnaire was distributed at the Formosa Boulevard station to tourists who were visiting the Kaohsiung city and intend to stay in budgets hotels in the Kaohsiung city of Taiwan in September and October, 2018. A convenience sample was drawn from tourists who were

29

staying in the Kaohsiung city. 400 questionnaires were distributed and 370 were returned. 366 valid responses were totaled after the assumption of these invalid responses.

This study uses Cronbach's α value to evaluator the reliability of each dimension scale. Measure of reliability is based on the principle suggested by Nunnally (1978), that is, the value of α should preferably be greater than 0.7. Analysis of a measure of internal consistency the official questionnaire shows an internal consistency of Cronbach's alpha 0.845 for customer service quality (18 items). As a result of the reliability of the internal data meets the standards, indicating a good reliability of the research measure, formerly consumers tend to evaluate service quality (18 items) in the same way as they would define their attributes and preferences of service experience in budget hotels. Consumers rely on perceived service quality or cues to help them make a purchase decision. In the context of this study, preferences of service experience that can be well explained by the service quality (18 items). Consumers evaluated their perceived overall service quality for budget hotels and satisfaction levels after hotel staying valuations. The

results indicated that consumers perceived better quality for the budget hotels to indicate significantly higher scores in staff are happy to provide service, (mean = 4.50), Be able to consider the guests when there are problems (mean = 4.23), and staffs can complete the services to be provided in time (mean = 4.21). This study suggests that staffs acts as a major role, which affects consumers' quality evaluation but also their actual experiences.

Of the 366 visitors achieved to fulfill the questionnaires of a budget hotel stay within the last year (i.e., 91% net response rate). In this study, both exploratory factor analysis (EFA) was applied to extract the dimensions of customer service quality (18 items) to recognize which aspects may constitute underling customer service quality (18 items) dimension. Then, segmentation using K Means Clustering and a t test examination and ANOVA analysis were also employed to explore notable differences in the customer service quality (18 items) dimension among budget hotel visitors.

Results

Demographic Characteristics Of Respondents

The demographic profiles of the hotel customers in this paper are as follows. The sample included (136, 40.5%) males and (200, 59.5%) females among the respondents. More than half of the respondents described being (178, 44%) were single; married (150, 53%) and others (8, 3%). Approximately 23.1% of the customers had finished education only at high school level. Responsible hotel customers represented (208, 61.9%) of the members had finished education at a bachelor's degree level and they were the great group of completed level of education. The majority of hotels' customers were identified their self at group of age 31-40 (127, 37.8%) and followed by with group of age 21-30 (112, 33.3%). With respect to the major monthly income level for respondents was US$650 to 1,000 (approximately 33%) and followed by with group of US$1001 to 1,300 (59, 17.6%).

Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) with Varimax rotation was employed to survey data to identify the dimensions of key constructs of the customer service quality model. The assumptions of factor analysis were conducted by the Bartlett test of Sphericity and the measure of sampling adequacy (MSA) for determining the correlation among the variables in a dataset. Items with factor loadings of 0.4 or higher were considered as satisfactory variables to measure constructs (Tinsley & Kass, 1979; Hair, Anderson, Tatham, & Black, 1998). Based on preliminary EFA, variables were tested by EFA to determine the right group of factors that explained all the customer service quality items.

The KMO value is 0.934, which is appropriate for factor analysis which is suitable for factor analysis. (P <.001), and the Bartlett value was indicated as 4003.979 (p <.001). The data from this questionnaire were suitable for factor analysis (Qiu Haozheng, 2008). This result showed that the data matrix was appropriate to have factor analysis achieved on it. By doing so, this method provides a greater understanding of key dimensions toward constructs of the customer service quality that may more precisely describe the interdependency of the 18 items. Based on the scores of loadings of the factors, those

31

factors derived are labeled as (1) problem solving based dimension (eigenvalue = 9.36, explained variance = 35.55%), (2) trusted professionals based dimension (eigenvalue = 1.48, explained variance = 24.72%). Those two factors with eigenvalues above one were extracted explaining 60.279% of the overall variance associated with visitors' customer service quality for understanding the service experience in budget hotels. In summary, an EFA analysis was employ to examine the important elements of key secondary dimensions toward constructs of the customer service quality among hotel visitors. It is suggested that hotel visitors considered the aspects connecting problem solving based dimension and trusted professionals based dimension, which may lead to an improved understanding of visitors' site choice in the budget hotel sector, as shown in Table 1. In this study, the procedure is an iterative procedure that partitions the dataset according to their structures into K number of predefined non-concurring distinct clusters or subgroups. It makes the data points of inter clusters as similar as possible and also attempts to keep the clusters as far as conceivable.

Table 1. Customer Service Quality Of Factor Analysis Of Participants

Items	Customer Service Quality Aspects	
Factor	Factor 1	Factor 2
	Problem Solving Based Dimension	Trusted Professionals Based Dimension
Be Able To Consider The Guests When There Are Problems	.797	
The Interests Of Residents As A Priority Consideration	.793	
Be Able To Provide Individual Care And Service For Different Customers	.778	
Staffs Can Provide Services That Make Residents Trust	.776	
Staffs Are Good And Polite	.731	

Staffs Are Trustworthy	.727	
Staffs Care About Guests	.721	
Staffs Can Provide Services Quickly	.690	
Staffs Can Understand The Needs Of Guests	.682	
Hotel Services Provided Meet The Expectations Of Guests	.559	
Staffs Have Professional Hotel Knowledge And Skill		.529
Feel Comfort When The Service Staff Contact		.733
Fulfill The Promise To Guests		.732
Staffs Can Complete The Services To Be Provided In Time		.709
Staffs Can Make People Feel Trustworthy		.683
Staff Are Well Dressed And Clean		.672
The Staff Will Inform The Time Of Each Service		.589
Staff Are Happy To Provide Service		.462
Eigenvalue	9.36	1.48
Explained Variance Of Each Factor	35.55%	24.72%
Cumulative Explained Variance		60.27%
KMO and Bartlett tests;		
Kaiser-Meyer-Olkin = 0.934		
Bartlett value = 4003.979		
Df = 153, sig. = 0.000		

Table 2. K-Means ANOVA For Clustering Factors Of Customer Service Quality

Overriding Dimension Influence	Factors of customer service quality Dimensions	
	F1	F2
Seekers For Effective Problem-Solving Based Service (N = 215, 63.9%)	.53364	-.94821
Seekers For Trusted Professionals Based Service (N = 121, 33.3%)	-.09485	.16853
Total (N = 366)		
df	1	1
F Value	344.195	5.442
P Value	0.00**	0.02**

Note: All illustrated F values are significant at 0.00**

The major aim of this study is to provide an advanced understanding, and to better develop, tourism marketing segmentation through investigative the potential differences regarding tourism service experience between different divisions of visitors' site choice in the budget hotel. Hence, the k-mean clustering Analysis an ANOVA analysis were conducted to recognize significant differences in factor means between the two segments. By viewing the findings produced from the F-test outlined in the Table 2, which indicated the foundational differences in service experience on a statistical level to be found between two of determinant groups of budget hotel customers who visited Kaohsiung city as a traveler with multiple purposes. All of the p-values are significant (0.00). This implies that the results are meaningful for marketers to advance their strategies concerning potential customers. This study also aimed to examine the socio-demographic characteristics associated with multiple clustering factors based on calculating service quality factors among hotel customers. A t test analysis and ANOVA analysis were carried out on the data to determine whether there are significant differences in terms of the clusters'

variable and socio-demographic of

customer (outlined in the Table 3).

Table 3. t-test and Anova Analyses For Clustering Factors
And Demographic Characteristics

Customers' demographic characteristics	clustering factors based on service quality			
	df	t Value	F Value	P Value
Gender (t-test)	/	-0.688	1.966	0.492
Age (Anova)	335	/	1.284	.278
Marital status(Anova)	335	/	1.148	.319
Income (Anova)	335	/	3.504	.031
Educational levels (Anova)	335	/	.941	.391

Note: All illustrated P values are significant at 0.00**

No statistically significant differences were found among these gender, Age, Marital status and Educational levels in tern of subgroups regarding customer perceived service quality (outlined in the Table 3).However, it appears there are significant differences regarding their income groups. This evaluation of impact of consumer demographic characteristics on clustering factors in relation to consumer service experience, may support organizations to incorporate new and inventive service experience into their general offerings and should be able to gain sustained competitive advantage.

Conclusion and Final Discussion

The objective of this study is to explore the quality levels of tourism service experience of budget hotel visitors. It was also aimed to developing an effective marketing program to satisfy customer and build customer higher leisure experience by identifying particular difference in the service quality of two groups of hotel visitors (seekers for effective problem-solving based service and -solving and seekers for trusted professionals based service). Most studies reviewed in effective marketing program do not provide detailed information on customer actual expectations leisure experience in budget hotels, then the results of this study make some observations on hotel marketing segmentation based on customer service quality. The

findings should help the development of promotional strategies that acknowledge differences in socio-demographic characteristics of customers in the context of budget hotel. Understanding perceived service quality is beneficial to managers and researchers as key for developing valuable strategies (Ding, Choo & Ng, 2020).

Particularly, it would be useful for hotel managers to provide tools and services that allow you to listen to relevant online conversations concerning service experience and meeting customer individual needs towards services in budget hotels. Hence, hotel customers' segmentation combines the benefits of standardization (e.g., lower costs, superior quality) with the greater service experience of well-trained service. Surprisingly, visitors who visited the budget hotel while traveling in Taiwan were most likely to be considered had higher expectation on hotel problems solved and trusted skillful service with the service performance. Based on the results, it would be appropriate to state that hotel managers should provide a greater service experience in what do at the destination to these visitors who stay at budget hotels.

References

Akter, S., Gunasekaran, A., Wamba, S. F., Babu, M. M., & Hani, U. (2020). Reshaping competitive advantages with analytics capabilities in service systems. Technological Forecasting and Social Change, 159, 120-180.

Bayih, B. E., & Singh, A. (2020). Modeling domestic tourism: motivations, satisfaction and tourist behavioral intentions. Heliyon, 6(9), 39-48.

Cha, Y. U., & Park, M. J. (2019). Consumer preference and market segmentation strategy in the fast moving consumer goods industry: The case of women's disposable sanitary pads. Sustainable Production and Consumption, 19, 130-140.

Uslu Cibere, G , Başaran, M , Kantarcı, K . (2020). Evaluation of Hotel Performance Attributes Through Consumer Generated Reviews: The Case of Bratislava . Advances in Hospitality and Tourism Research (AHTR) , 8 (1) , 48-75 . DOI: 10.30519/ahtr.592312.

Ding, K., Choo, W. C., Ng, K. Y., & Ng, S. I. (2020). Employing structural topic modeling to explore perceived service quality attributes in Airbnb accommodation. International Journal of Hospitality Management, 91, 102676.

Hapsari, R., Clemes, M., & Dean, D. (2016). The mediating role of perceived value on the relationship between service quality and customer satisfaction: Evidence from Indonesian airline passengers. Procedia Economics and Finance, 35(12), 388-95.

Johnson, R. A., & Wichern, D. W. (2002). Applied multivariate statistical analysis (Vol. 5, No. 8). Upper Saddle River, NJ: Prentice hall.

Kele, A. T. B. A., Mohsin, A., & Lengler, J. (2017). How willing/unwilling are luxury hotels' staff to be empowered? A case of East Malaysia. Tourism management perspectives, 22, 44-53.

Keller, K. L., Parameswaran, M. G., & Jacob, I. (2008). Strategic brand management: building, measuring and managing.

Mahbubi, A., Uchiyama, T., & Hatanaka, K. (2019). Capturing consumer value and clustering customer preferences in the Indonesian halal beef market. Meat science, 156, 23-32.

Mandhani, J., Nayak, J. K., & Parida, M. (2020). Interrelationships among service quality factors of Metro Rail Transit System: An integrated Bayesian networks and PLS-SEM approach. Transportation Research Part A: Policy and Practice, 140, 320-336.

Mathur, S., & Dewani, P. P. (2016). Influence of cultural heritage on hotel prices, occupancy and profit: Theory and evidence. Tourism Economics, 22(5), 1014-1032.

Moro, S., Lopes, R. J., Esmerado, J., & Botelho, M. (2020). Service quality in airport hotel chains through the lens of online reviewers. Journal of Retailing and Consumer Services, 56, 102193.

Sarti, S., Darnall, N., & Testa, F. (2018). Market segmentation of consumers based on their actual sustainability and health-related purchases. Journal of Cleaner Production, 192, 270-280.

Shah, F. T., Syed, Z., Imam, A., & Raza, A. (2020). The impact of airline service quality on passengers' behavioral intentions using passenger satisfaction as a mediator. Journal of Air Transport Management, 85, 101815.

Song, J. Y., Chang, W., & Song, J. W. (2019). Cluster analysis on the structure of the cryptocurrency market via Bitcoin–Ethereum filtering. Physica A: Statistical Mechanics and its Applications, 527, 121339.

Tajeddini, K., Martin, E., & Ali, A. (2020). Enhancing hospitality business performance: The role of entrepreneurial orientation and networking ties in a dynamic environment. International Journal of Hospitality Management, 90, 102605.