



MEASUREMENT OF E-SERVICE QUALITY IN ONLINE TOURISM

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Abstract: *Tourism is an inviting industry for Internet Transformation. Now-a-days it has become essential to evaluate and improve website performance in order to keep and increase the online presence and competitiveness in the marketplace. Therefore the challenge of identifying, attracting and retaining customers in the online market is becoming a critical success factor. This study focuses on eservice quality dimensions in the Internet market with an empirical study on online travel service. The purpose of this study is to develop a scale to evaluate eservice quality, which provides fresh insight into the dimensions of eservice quality. The present paper incorporates the method of distributing the questionnaire for addressing the determinants of e-Service Quality in online tourism. It also uses factor analysis method for analyzing the data. From a managerial perspective, this paper helps practitioners to understand what role the quality of websites have and how far are they helpful in influencing the visitors to visit the destinations.*

Keywords: *Website Evaluation, Online Travel, Travel and Tourism, SERVQUAL, Service Quality, Customer Satisfaction*

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INTRODUCTION

With the rapid development of information and communication technology, Internet and World Wide Web (WWW) have become important tools in business, which has a major impact on business world. Internet has significantly revolutionized travel industry in the last decade. In the early stage of Internet market, online travel service companies had competed with traditional travel service companies by providing travel service at lower prices.

There are some key differences between traditional and e-services. The differences between traditional and e-services are as follows (Surjadaja, Ghosh & Anthony, 2003). In a traditional service, only people —the employees— are involved in the interface of the service encounter. In e-service, on the other hand, ICT or employees are involved in the interface, mediated by the Internet. Moreover, during an e-service encounter, the customers are restricted to hearing and viewing whereas, in traditional services, customers can experience the service by using all their senses. Furthermore, traditional service is restricted by distance and opening hours, whereas e-service has substantially removed these barriers.

E-tourism, takes into account when, traditional travel agencies, tour operators, national tourist offices, airlines, car hire firms, hotels and other accommodation providers offer their services online which enable the tourists to schedule their trip online, and hence describes a new way of doing business. It produces fast communications, global accessibility and minimal costs for new tourism organizations going online (Scottish parliament, 2002).

Since the use of internet is growing continuously many tourism firms are motivated to offer their services on-line. Being online is so important that if a tourist service does not be on the web it may well be ignored by the millions of people who now have access to internet and expect every tourism service have a comprehensive presence on the web (WTO, 2000). ICT has become an almost universal feature of the tourism industry. Its power allows information to be managed more effectively, and transported worldwide, almost instantly.

THE CONCEPT OF QUALITY AND SERVICE QUALITY

There are several definitions and meanings for the concept of “quality” as discussed by Ojasalo (2006). Reeves and Bednar (1994) argue that, no universal definition of quality exists; instead, different definitions are appropriate under different circumstances. Multiple definitions are needed to capture the complexity of the of the quality construct and in order



for firms to address quality issues that change as products move through various stages, from design, through production to the market (Garvin, 1984; Sebastianelli and Tamimi, 2002).

Quality has sometimes been defined as value (Feigenbaum, 1951; Abbott, 1955). In this definition, the price is also included in the product or services attributes that are evaluated by customers when purchasing and consuming the product or service. In other words, value is a function of results achieved for customers and costs to the customers (Heskett et al., 1994).

In the context of services, quality is often understood as subjective customer perception. Customer perceived service quality is usually understood to result from how well customer expectations are met by actual experiences/performance. This is called as disconfirmation, and is accepted by several service quality researchers (Grönroos, 1982; Parasuraman, Zeithaml and Berry, 1988; Bitner, 1990; Bolton and Drew, 1991; Gummesson, 1991; Oliver, 1993). The idea of disconfirmation has its roots in adaptation-level theory (Helson, 1948; 1964). Disconfirmation paradigm suggests that when the performance is at the same or higher level than expectations, then service quality is good or excellent. If the performance is at lower level than expectations, service quality is inferior or bad.

DISCONFIRMATION (Perception-Expectation) -----→ Service Quality

Where, Perception is Actual Experience.

Parasuraman's et al. model of Service Quality

Parasuraman, Zeithaml and Berry (1985) conceptualized service quality as the relative perceptual distance between customer expectations and evaluations of service experiences. Thus, their model is also based on the disconfirmation paradigm. In their model of perceived service quality both expected service as well as experienced service is affected by ten determinants of service quality. Expected service, in addition, is also affected by word of mouth, personal needs, and past experience. The ten service quality dimensions presented in Parasuraman's et al. model are as follows:



- (1) *Reliability* involves consistency of performance and dependability. It means that the firm performs the service right the first time. It also means that the firm honors its promises. Specifically, it involves accuracy in billing, keeping records correctly, and performing the service at the designated time.
- (2) *Responsiveness* concerns the willingness or readiness of employees to provide service. It involves timeliness of service, for example mailing a transaction slip immediately, calling the customer back quickly, and giving prompt service and setting up appointments quickly.
- (3) *Competence* means possession of the required skills and knowledge to perform the service. It involves knowledge and skill of the contact personnel, knowledge and skill of operational support personnel, and research capability of the organization, for example in a securities brokerage firm.
- (4) *Access* involves approachability and ease of contact. It means that the service is easily accessible by telephone, waiting time to receive service is not extensive, hours of operation are convenient, and the location of service facility is convenient.
- (5) *Communication* means keeping customers informed in language they can understand and listening to them. It may mean that the company has to adjust its language for different consumers—increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. It involves explaining the service itself, explaining how much the service will cost, explaining the trade-offs between service and cost, and assuring the consumer that a problem will be handled.
- (6) *Credibility* involves trustworthiness, believability, and honesty. It involves having the customer's best interests at heart. Contributors to credibility are company name, company reputation, personal characteristics of the contact personnel, and the degree of hard sell involved in interactions with the customer.
- (7) *Security* is the freedom from danger, risk, or doubt. It involves physical safety.
- (8) *Understanding/knowing the customer* involves making the effort to understand the customer's needs. It involves learning the customer's specific requirements, providing individualized attention, and recognizing the regular customer.



(9) *Tangibles* include the physical evidence of the service, such as physical facilities, appearance of personnel, tools or equipment used to provide the service, physical representations of the service, such as a plastic credit card or a bank statement, and other customers in the service facility (Parasuraman, Zeithaml and Berry, 1985).

(10) *Courtesy* involves politeness, respect, consideration, and friendliness of contact personnel.

REVIEW OF LITERATURE

E-tourism firms use internet to better serve their customers. But making tourism service information accessible to customers is not enough for effective distribution. Well-designed mechanism must allow customers to process their purchase (Kim et al, 2005). If a tourism organization can better represent its destination (services) on the internet than another then it may win tourist who is uncertain about where to travel (WTO 2000). Since travellers cannot pre-test the product or easily get their money back if the trip does not meet up to their expectations, access to accurate, reliable, timely and relevant information is essential to help them make an appropriate choice (O'Connor 2000).

In a study conducted by *Rob Law, Shanshan Qi in the year 2009*, titled “**Progress in tourism Management: A review of website evaluation in Tourism Research**”, with an objective of finding out the recent developments in Website evaluation by gathering information on published articles from science direct and google scholar, it was found that Theories and models from other disciplines like psychology, human-computer interaction should be incorporated into the tourism website evaluation process.

In another study titled “**Future of Travel and tourism Industry with the adoption of Web Services in electronic distribution**” conducted by *Jayesh Ambedkar in the year 2006* with an objective of analysing the role web services play in streamlining the e-distribution of travel inventory, it was found that Changes like disintermediation, Standardized content, Value added service providers with strong cost industry alliances are likely to happen in the future. Multiple regression analysis was used to analyse the information.

In a study conducted by *Yoon C. Cho and Jerome Agrusa in the year 2006*, titled “**Assessing use acceptance and satisfaction towards Online Travel Agents**” with an objective to find out how ease of use and usefulness affect attitudes toward online travel agencies and



customer satisfaction, it was concluded that Customer's attitudes towards online travel agencies significantly impact the level of e-satisfaction.

In one of the another study titled **“A framework for the evaluation of Hotel websites”** conducted by *Costas Zafiropoulos in the year 2006* with an objective to examine how to offer a cost-effective, attractive and content-rich web experience resulting in high proportion of repeat visits and online sales, it was observed that While the main use of the website is as an advertisement brochure, online booking and reservation are provided to low degrees.

Pierre Benckendorff, 2006 in his study titled, **“An exploratory analysis of Traveller Preferences for Airline website content”** with an objective to explore the preferences of airline travellers for various content attributes on airline websites, it was found that the basic feature of "Look and Book" is viewed as the most important by consumers while selecting an airline website.

In a study conducted by *Poonam bedi and Hema Banadi,2006*, titled, **“Trust, Aware and Usability”** with an objective to explore the relationship between user trust and usability of a website, it was found that A trustworthy, attractive, and usable website can attract and retain customers, thus ensuring their revisit to the site, critical to the success of that site.

Sunil Sahadev and Nazrul Islam, 2006, in his study entitled, **“Exploring the determinant of e-commerce usage in the Hotel Industry in ailand: An Empirical Study”** with an objective of exploring the impact of various factors on the Internet usage rate, it was found that hotel's intensity of use of e-commerce increases in direct proportion to the Internet penetration in the target markets served by the hotel.

Jeong, Oh, and Gregoire (2001) investigated **“Consumer perceptions of hotel websites”**. The results indicated that potential online customers were only moderately satisfied with hotel websites. They found that website design, sufficient information, and customers' perceptions of security for online transactions were crucial to increase the number of Internet sales.

RESEARCH GAP ADDRESSED

As such, there have been several researches related to quality in traditional ways of businesses, Anderson, Fornell, & Lehmann 1994; Oliver 1981; Parasuraman, Zeithaml, &



Berry 1988 & Parasuraman 1996. Moreover there have been also enough researches related to tourism in off-line environment, Akama S 2002; Haber and Lerner 1998. But unfortunately there have been fewer researches related to service quality in on-line industries especially on-line tourism.

Current research is going to fill this gap by finding the most important of SERVQUAL in e-tourism industry.

RESEARCH METHODOLOGY

Introduction

The first stage of this work was qualitative, which was to design the questionnaire and the next part was quantitative and focused on gathering survey data to assess determinants of the e-SERVQUAL model.

The first section of the questionnaire was designed to obtain the respondents' demographic data and behavioural characteristics: Gender, Age, Occupation, family Income, Purpose of their trip, preference between travel agency and travel websites.

The Second section consists of main questions related to the model in this research. Items were gathered from the previous studies, Servqual Model (S. Akama, Mukethe Kieti 2002).

Data Sample

The empirical sample of this study was the customers who use internet. The customers were asked to indicate the dimensions which influence their evaluation of online travel service quality. It is based on their previous experience of online travel service booking. The questionnaire was developed mainly based on the scales from previous researches. A five point Likert scale ranging from strongly disagree (1) to strongly agree (5) was used to measure each item.

An online questionnaire using Google was prepared and distributed to the customers by mail. Totally 250 questionnaires were mailed to potential respondents, and 200 of the 250 individuals replied. Among the 200 responses, 50 of them indicated that they have no experience of online travel service booking from online travel companies. The remaining 150 responses are the basis of this study. The 65% response rate can be considered acceptable since generally the response rate for questionnaires in information systems domains is between 8 and 15%. SPSS 17 has been used to analyse the data.

The demographic profile and their behavioural pattern can be seen as under.



Table 1: Demographic profile of the respondents

DEMOGRAPHIC PROFILE		PERCENT (%)
Gender	Male	64
	Female	36
Age (in year)	18-25	32
	26-39	31
	40-50	29
	51-60	8
Education	Schooling	15
	Undergraduate	22
	Postgraduate	27
	Technical/Professional	36
Income (in thousands)	<30	14
	30-50	27
	51-75	28
	>75	31

Table 2: Behavioural Pattern of the respondents

Behavioural Characteristics		Percent (%)
Purpose of visiting site	Airline ticket booking	37
	Railway ticket booking	42
	Hotel Reservation	15
	Others (car on rent etc.)	6
Purpose of Travel	Business	27
	Pleasure	32
	Education	35
	Others (Wild life etc.)	6
Mode of Travel booking	Travel Agency	67
	Travel Website	33

After that a factor analysis was performed to ascertain whether the five-factor measurement reflects consumers' underlying mental model. To be sure if we are permitted to use factor analysis in this case or not, KMO measurement and Bartlett's test analysis were conducted. KMO is greater than 0.5(=0.75) it shows that the number of samples is big enough for using factor analysis.



In order to test the reliability of each factor, Cronbach's alpha scores were calculated. The Cronbach's alpha scores ranged from 0.50 to 0.68 for the five factors. Since 0.5 is the minimum value for accepting the reliability test (Nunnally 1967) the results of factor analysis in this research are considered reliable.

Table 3: Summary Results of Factor loading

Item	Mean Value	Factor Loading	Cronbach's Alpha Value
Website Functionality (D1)			0.681
Easy to complete the transaction (Q1)	4.1	0.534	
Search function helpful (Q11)	3.7	0.530	
The layout of the site is in logical sequence (Q22)	3.6	0.519	
Website appears professional (Q23)	3.6	0.763	
Understands customer's needs and give information (Q24)	3.6	0.514	
Security(D2)			0.665
Feel safe in online purchasing on this site (Q5)	3.6	0.617	
Feel secure providing sensitive information (Q17)	3.6	0.664	
Company behind the site reputable(Q19)	3.5	0.681	
Information Quality(D3)			0.669
Information updated (Q2)	3.7	0.567	
Information relevant (Q3)	3.7	0.738	
Information reliable (Q4)	3.5	0.737	
Find the information accurate (Q7)	3.5	0.530	
Courtesy(D4)			0.599
Develops a platform for users to exchange travel experience (Q26)	3.7	0.548	
Easy to track the delivery of the products/services purchased (Q27)	3.4	0.597	
Service representatives did as they promised to e-mail or call customers by a certain time (Q29)	3.5	0.755	
Responsiveness(D5)			0.543
Policies for cancelling orders laid out on the site are customer friendly (Q10)	3.7	0.506	
Pro ducts/Services are delivered by the time promised (Q12)	3.7	0.589	
Provides FAQ Information (Q15)	3.7	0.662	
Customers are informed as the transaction is completed (Q25)	3.5	0.535	



DISCUSSION

Customer perceived e-service quality is one of the critical determinants of the success of online business (Yang et al. 2004). Accordingly, there is a rise of research on the construct of e-service quality.

The demographic profile and the behavioural pattern of the respondents show that In Indian scenario, there are still more of male who are internet savvy. As far as the age factor is concerned, people below the age of 40 years are more prone to the use of internet especially for online booking. However, this trend is now also rising in the upper age class. The most important part of the data collected emphasise on the fact that even in the 21st century, people prefer to go to travel agents for scheduling their trip. They still run after the traditional methods. However, there is a wave coming up in the market which clearly shows the scope of online travel agents in our country as already 33 percent of the respondents have started making use of the travel websites.

In the second part of the data collected, the results in this study indicate that there are five key dimensions of e-service quality, including website functionality, Security, Information Quality, Courtesy and Responsiveness. The results of reliability test of the scale demonstrate good psychometric properties of the scale.

On the basis of reliability test, this research suggests that website functionality and information quality were the two most critical factors in evaluating e-travel service quality. It appears that online customers evaluate e-travel service quality mainly on the basis of website functionality, including the elements such as workable functions that are quickly linked and make it easy to find the wanted information. Online customers can be easily turned off when the site is difficult to access, or cannot be navigated easily, for much time may be unnecessarily used up.

For customers seeking to acquire the confidence to make online purchases, much more attention should be paid to the concerns of security. Furthermore, a procedure should be developed that is highly reliable in terms of the way in which it responds to customers' inquiries and complaints in regard to online transactions. As a part of courtesy and responsiveness, travel websites should provide customized information related to



customers' interests and offer a user friendly environment to facilitate their online surfing, searching and communicating.

For online travel companies, providing eservice with good quality involves much more than creating an excellent website for customers. Online travel companies should design its websites to be as easy as possible for customers to use. Online travel companies still need to pay attention on the building of trust, satisfaction and loyalty in customers, which can help to improve their eservice quality, which prompts the managers to develop right strategies to retain customers. Of course, offering true and accurate information on the website might be the first strategy to help online travel companies to build up good image in customers' mind, and the accurate service delivery might help to improve the confidence of customers.

LIMITATIONS AND FUTURE RESEARCH

This study has offered some valuable insight into studies on eservice quality, which involves a number of limitations that need to be acknowledged. First, the empirical study was conducted only on a limited sample size i.e. 300. It is recommended to replicate the study with a larger number size. Secondly, the factor in regard to cultural differences across regions and nations may affect the reliability of e-travel service quality dimensions. Thus, there is scope for further work on the other measurement of eservice quality from the perspective of customer. In addition, future research could be conducted to compare the quality dimensions identified by means of a longitudinal assessment of the website changes during different periods.

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