MEASUREMENT OF E-SERVICE QUALITY:
AN EMPIRICAL STUDY ON ONLINE RAILWAY TICKET RESERVATION WEBSITE SERVICE

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Abstract

With the rapid developments in the sphere of information technology, internet has become a powerful tool in business. As a result e-service quality has become critical for companies to attract and retain the customers in this virtual environment. The main aim of this article is to provide insight into the dimensions of e-service with an empirical study on online railway ticket reservation website service. Primary data was collected from the online users of Indian Railways in India with the help of a 21 item instrument which is devised on the basis of thorough review of literature. To extract the various dimensions of e-service quality factor analysis is performed via SPSS 16. The results bring out four core e-service quality dimensions namely: Efficiency, Responsiveness, Privacy and security and Reliability. Surprisingly, privacy and security dimension scores the highest score of 3.85. It indicates that the users do not recognize considerable risk in online environment of e-service stemming from the possibility of misuse of their financial information and personal information. It is followed by efficiency, responsiveness and reliability with mean scores of 3.72, 3.43 and 3.19 respectively. Managers should focus on providing superior technical function of the website without any operating problems and 24 hours access to e-service. The reason behind is that if the users cannot use e-service when they need, they will immediately switch to some other e-service. Directions for further research on e-service quality are offered. Managerial implications stemming from the empirical findings about e-service quality are also discussed.

Keywords: E-SERVQUAl, E-service Quality, Online Tourism, Website Evaluation.

Introduction

With the rapid developments in the sphere of information technology, internet has become a powerful tool in business. Internet has radically revolutionized railway industry in the last five years. Internet has become a critical channel for railway ticket reservation and selling various tourism related products and services. If this channel is to be feasible, they must be perceived by customers as efficient and effective. Earlier low price and web presence were the main drivers of success, but now railways operating in the internet market need something else to attract customers for their online services. Oliveria et al. (2002) state that electronic service (eservice) might be the key to long term advantages in the digital times, and e-service quality is becoming even more critical for companies to retain and attract customers in the digital age .The situation become more vulnerable, when consumers could not complete transactions, desired information could not be accessed, inaccurate information, emails are not answered, low speed of the websites, down servers etc. If Web channels are to be accepted by consumers, companies must shift the focus of e-business from e-commerce - the transactions—to e service-all cues and encounters that occur before, during, and after the transactions (Parasuraman et al. 2005).

 Even though railways have realized the importance of online service, but they have not made efforts to understand the customer's perception of online services and how customers assess their online service quality. To deliver superior e-service quality, railways first need to understand how consumers perceive and evaluate online services.

Currently many studies have been conducted on traditional service quality but the area of e-service quality appears to be understudied. This article focuses on measuring e-service quality dimensions in the online market with an empirical study on online railway ticket reservation website service.

The paper is organized as follows: Following the introduction, the second section provides a brief review of literature on e-service quality and various techniques measuring website e-service quality. The third section provides the research methodology applied in this research work. The fourth section reports the results and findings of the empirical data analysis. The fifth section sheds light on the various managerial implications of the present study. Finally, the study concludes with a discussion of the limitation of the study, and the future research directions.

Review of Literature

Service Quality

Traditional service quality refers to the quality of all non Internet based customer interactions and experiences with companies (Parasuraman et al. 1988). Service quality is determined by the difference between expected service and perceived service from companies (Zeithaml 1998). Parasuraman et al. conduct empirical studies in different service industries to develop and refine the service quality instrument (SERQUAL) to assess companies' service quality (Parasuraman et

al. 1988, 1991, 2005). They aim at providing a generic instrument for measuring service quality across a broad range of service categories. The widely used SERVQUAL instrument is composed of five dimensions (Parasuraman et al. 1988), which is based on the original ten dimensions of service quality put forward by Parasuraman et al. (Parasuraman et al. 1985). The five dimensions of SERVQUAL are:

- **Tangibles**: The appearance of physical facilities, equipment, personnel and communication materials.
- **Reliability**: The ability to perform the promised service dependably and accurately.
- **Responsiveness**: The willingness to help customer and provide prompt services.
- **Assurance**: The knowledge and courtesy of employees and their ability to convey trust and confidence.
- **Empathy**: Care and individualized attention provided to customers.

Since its inception, the researchers have widely used the five dimensions of SEVQUAL instrument to measure service quality in various industries like banks, travel companies, retail sector etc. But to measure e-service quality evaluation SERVQUAL is not appropriate. The reason lies due to the difference of e-service from traditional service in three aspects: no sales staff, the absence of traditional tangible element, and customers self service. In this light it is clear that the SERVQUAL is not suitable for measuring eservice quality, and it is meaningful to another instrument for measuring e-service quality.

E-Service Quality And Its Dimensions

Zeithaml and al., (2005) defined electronic service quality as "the extent to which a web site facilitates efficient and effective shopping, purchasing, and delivery of products and services. Although service quality literature is found to be rich in different service sectors, but e-service quality evaluation in railway industry is still understudied. A thorough review of existing research studies done empirically to examine customers' perception of e- service quality reveals that many studies have been undertaken to uncover underlying dimensions of e-service quality evaluation in different sectors.

Table: 1 Critical Dimensions For Measuring E-Service Quality

S.No	Author, year	Description	Dimensions
1.	Dabholkar (1996)	Focuses on website design	website design, reliability, delivery, ease of use, enjoyment and control
2.	Yoo and Donthu (2001)	Develop a 4dimension scale called SITEQUAL to measure online service quality of website	ease of use, aesthetic design, processing speed, and interactive responsiveness
3.	Cox and Dale (2001)	Set up 6 dimensions of online retailing service quality with the comparison of the traditional dimensions of service quality	website appearance, communication, accessibility, credibility, understanding and availability
4.	Khan, Mahapatra and Sreekumar (2009)	Identified seven dimensions to measure internet banking service quality.	Reliability, Accessibility, User-friendliness, Privacy/Security, Efficiency, Responsiveness and Fulfillment were identified.

Main E-Service Quality Evaluation Techniques

Majority of scales have been developed by different researchers for measuring the website e-service quality. But most of the scales have been used in the e-retailing context. There is a need to evaluate railway website which is a tourism website. So in the following section only three main scales developed for measuring e-service quality is reviewed, namely e-SERVQUAL, WEBQUAL, and eTailQ, which seems to be the most inclusive ones amongst those reported in the literature to date.

E-Servqual

Zeithaml (2000, 2002) and Parasuraman et al., (2005) developed E-S-QUAL Model to measure e-service quality. E-SERVQUAL is a widely used technique to measure e-service quality as perceived by customers. It follows the rule of original SERVQUAL and includes some dimensions of SERVQUAL. The E-SERVQUAL scale contains a core and recovery scale, represented by four and three dimensions respectively. Core scale refers to the quality of the website itself, while the recovery scale is more concerned with the actual performance of the company, rather than with website performance.

Four dimensions of core e-SERVQUAL scale are efficiency, fulfillment, reliability and privacy. Efficiency defines customers' ability to effectively access the website, find their de-sired product and related information, and check it out with minimal effort. Fulfilment refers to a company's actual performance in contrast with what is promised through the website, and incorporates accuracy of service promises, such as having products in stock and timely delivery. Reliability is a technical function of the website such as the extent to which it is available and functioning prop-erly. Finally, privacy refers to the company's will and ability to maintain the integrity of customer data. Three recovery dimensions of e-SERVQUAL are responsiveness, compensation and contact points, which are mainly concerned with the situations which arise when a problem needs to be solved and "personal service" is required. Responsiveness defines the company's ability to provide appropriate problem-solving mechanisms (online complaint handing, handling returns mechanisms, online guarantees, etc.). Compensation involves money-back guarantees, return of shipping and handling costs. Con-tact points refers to customers' need to speak to a "live" customer service agent online or on the phone, and defines the company's ability to offer such support in real-time via online or other means of communication.

Webqual

WEBQUAL is developed by Lociacono, Watson and Goodhue in 2000. WEBQUAL is used to judge a website ability to satisfy customer needs. Its main focus is on website interface and most empirically grounded e-service quality scales. It is based on two behavioral theories namely Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA). The prime motive of WEBQUAL is to predict the revisit/reuse behavior of web users based on their perceptions of overall website quality. The instrument consists of four constructs, namely usefulness, ease of use, entertainment, and complimentary relationship, which include a range of website dimensions, each of which is evaluated by a website visitor according to his/her perceptions of web-site quality. Usefulness includes informational fit-to-task, interactivity, trust and response time dimensions. Ease of use includes ease of understanding and intuitive operations dimensions. Furthermore, the entertainment construct consists of the visual appeal (presentation graphics and text), innovativeness ("aha"/surprise element associated with creativity and uniqueness), and flow-emotional appeal (the website's ability to deliver enjoyable and engrossing experiences for users) dimensions. Finally, complimentary relationship construct includes consistent image (the website's ability to accurately reflect the company's image promoted through other communication channels), on-line completeness (the web-site's overall ability to suit customers in their operations), and better than alternative channels (the website's ability to act on the same level or better than alternative marketing channels) dimensions.

Etailq

 ETAILQ is the scale for measuring and predicting e-tail quality. It is developed by Wolfinbarger and Gilly in 2002. It suggests four website quality dimensions to predict customer judgments of quality and satisfaction with the website, namely website design, fulfillment/reliability, privacy/security, and customer service. Fulfillment/reliability depicts the accurate display and description of a product and delivery of the right product within the time frame promised.

Website design comprises of all elements of the consumer's experience at the website (except for customer service), including navigation, information search, order processing, appropriate personalization and product selection. Customer service signifies to a responsive, helpful, willing service that responds to customer enquiries quickly. Finally, security/privacy refers to the security of credit card payments on the website and privacy of shared information.

Objectives

The main aim of this article is to provide insight into the dimensions of e-service with an empirical study on online railway ticket reservation website service. Evaluate all the dimension of e-service quality as perceived by the users of e-services of railways.

Research Methodology

A well structured questionnaire was designed after analyzing the various constructs to measure customer's satisfactions with e-service quality of Indian railways. The questionnaire was divided into three sections. Section A collects the respondents' demographic details such as gender, age, education, occupation and income. Section B was used to collect data on the usage pattern of the online services of Indian Railways in terms of length of period and frequency. While section C was used to determine respondent's perception on e-service quality using 21 items developed on the basis of ESERVQUAL (Parasuraman et al., 2005). Respondents were asked to evaluate these items on 5-point Likert scale, ranging from "strongly disagree" to "strongly agree.

Indian Railway Catering and tourism Corporation (IRCTC) is providing the service of online reservation of railway ticket on behalf of Indian Railways. So, the empirical sample of this study was the users of IRCTC website to make the online reservations of the railway ticket in India. The questionnaire was distributed to the customers by e-mail to a convenience sample during the month of July and August 2010. Totally 800 questionnaires were mailed to potential respondents, and 158 0f the 800 individuals replied at a response rate of 19.75 percent. Among 158 questionnaires, 8 incomplete questionnaires were removed from the further analysis. The remaining 150 responses formed the basis of the present study.

Results And Discussion

Profile of The Respondents

The final sample size for e-service evaluation is 150. The sample is considered to represent the IRCTC's website users in India to reserve a train ticket through internet. The profile of the respondents is shown in table 2

Table 2: Profile of The Respondents

Variable		Frequency	Percent
Age	18-28 years	41	27.3
	29-39 years	53	35.3
	40-50 years	35	23.3
	Above 50 years	21	14.0
	Total	150	100.0
Gender	Male	145	96.7
	Female	5	3.3
	Total	150	100.0
Education	Under Graduate	13	8.7
	Graduate	53	35.3
	Post-Graduate	45	30.0
	Professional Degree	39	26.0
	Total	150	100.0
Occupation	Government Employee	24	16.0
	Private Employee	67	44.7
	Student/Research scholar	20	13.3
	Own Business/Entrepreneur	20	13.3
	Professional/ self employed	19	12.7
	Total	150	100.0
Annual Income	Up to Rs. 2, 50,000/-	55	36.7
	Rs. 2, 50,000/- to Rs. 5, 00,000/-	53	35.3
	Rs. 5, 00,000/- to 7,50,000/-	22	14.7
	Above Rs. 7,50,0000/-	20	13.3
	Total	150	100.0
Length of e-service usage	Less than 6 Months	11	7.3
	6 to 12 Months	13	8.7
	12 to 24 Months	35	23.3
	More than 24 Months	91	60.7
	Total	150	100.0
Frequency of use of e-service	Occasionally	21	14.0
	Moderately	54	36.0
	Frequently	75	50.0
	Total	150	100.0

The respondents were at least 18 years old since, by this age, one is allowed to reserve a railway ticket through internet in India. The age profile of the respondents represents most age groups with the majority (35.3%) being in the 29-39 years and (27.3%) in 18-28 years. Majority of the respondents (96.7%) are male and only (3.3%) are female. About 35.3% of the respondents are graduation degree holders and 44.7% are private employee. Seventy two percent of the respondents belongs to low income group up to Rs250000 (36.7%) and Rs250000 to Rs500000 (35.3%). Further, as to the e-service usage pattern 60.7% of the respondents have been using e-service for more than 24 months and 50% uses this service frequently.

Data Analysis

Reliability was tested by using Cronbach's alpha coefficient. The higher score denotes the high reliability of the generated scale i.e. items represent a high degree of inter-correlation. In this study the cronbach's alpha score is 0.945 which is well above the recommended level of 0.70, indicating that the variables are interrelated.

In order to express the structure of the original questionnaire with fewer variables and maintain most information provided by the original data factor analysis is performed on 21 items by using SPSS 16.0. The first step is to assess the appropriateness of factor analysis. Measure of sampling adequacy, such as Bartlett's Test of Sphericity (approx. chi square is 1.833E3, degree of freedom is 210 and significance is 0.000) and Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value is 0.927 shows that data was fit for factor analysis (Table 3).

Table 3: KMO And Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.927
Bartlett's Test of Sphericity	Approx. Chi-Square	1.833E3
	df	210
	Sig.	.000

Further, factors have been extracted by using Principal Component Analysis extraction method with orthogonal varimax rotation. Factors have been extracted on the basis of Eigen Values. In this approach, factors with Eigen values greater than 1.0 will be retained and other factors will be excluded. In the present study four factors has been extracted explaining 66.797% of total variance (Table 4).

Table 4: Total Variance Explained

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.325	49.169	49.169	4.112	19.581	19.581
2	1.339	6.378	55.547	3.620	17.236	36.816
3	1.265	6.025	61.572	3.209	15.281	52.097
4	1.097	5.225	66.797	3.087	14.700	66.797

Extraction Method: Principal Component Analysis.

To test the reliability of the variables communalities of the variables has been computed. Variables having value less than 0.4 should be dropped from the further analysis as they are not fit for the factor solution. As it is clear from table 5, all the items fit well in factor solutions, as all factors have value more than 0.40.

Table 5: Communalities

	Initial	Extraction
The IRCTC site makes it easy to find what I need (with minimum data input).	1.000	.774
Simple for me to learn the handling of site.	1.000	.786
It loads its page fast	1.000	.638
Information at this site is well organized	1.000	.788
Overall, the IRCTC's site navigation is consistent and standardized.	1.000	.700
The IRCTC's site is always available (i.e. 24*7*365 accessibility).	1.000	.716
The IRCTC's site operates without problem.	1.000	.719
When the IRCTC's site promise to perform something it does so.	1.000	.618
It offers all required products and service I want	1.000	.538
Information on the IRCTC's website about the tourism products and services etc. is up-to-date and correct.	1.000	.485
The IRCTC's site never shares my personal information with other sites.	1.000	.678
The IRCTC's site protects information about my credit card.	1.000	.791
The IRCTC's site provides confirmation of executing online transactions.	1.000	.696
The IRCTC authority gives me promote and relevant response of my queries and problems.	1.000	.583
The IRCTC's site provides a phone number to reach the IRCTC.	1.000	.651
The IRCTC's site has online customer service representatives.	1.000	.671
The IRCTC's site provides language option so as to personalize the site as per personal requirement.	1.000	.665
Desired products and services can be easily found using key word search option in the web site	1.000	.713
The IRCTC site provides comprehensive FAQ section to help/ guide me for my common questions.	1.000	.765
I don't have to scroll from side to side to adequately see the IRCTC's website page.	1.000	.625
The website does not contain too many pop-ups and banner advertisement that make it difficult for me to look on the webpage.	1.000	.427

Extraction Method: Principal Component Analysis.

After the extraction of factors the next task is to interpret and name them. This is done by identifying the items that have high loading on individual factors. An important output, rotated component matrix is used to identify the variables in terms of the factors. The factor loadings represent the correlations between factors and variables. Values close to 1 represent high loadings and those close to 0 represent low loadings. All variables have factor loading greater than .45 are significant contributors and if factor loading is greater than .7 these are supposed to be highly significant. The objective is to find variable which have high loading on one factor, but low loading on other factors. Rotated factor matrix has been depicted in table 6 and explained below.

Table 6: Rotated Component Matrix[a]

	Component			
	1	2	3	4
The IRCTC site makes it easy to find what I need (with minimum data input).	**.812**	.196	.231	.148
Simple for me to learn the handling of site.	**.830**	.220	.144	.166
It loads its page fast	**.522**	.125	.200	.557
Information at this site is well organized	**.681**	.388	.146	.390
Overall, the IRCTC's site navigation is consistent and standardized.	**.653**	.144	.251	.436
The IRCTC's site is always available (i.e. 24*7*365 accessibility).	.064	.163	.147	**.815**
The IRCTC's site operates without problem.	.358	.387	.144	**.648**
When the IRCTC's site promise to perform something it does so.	.303	.236	.351	**.590**
It offers all required products and service I want	.329	.383	.333	**.414**
Information on the IRCTC's website about the tourism products and services etc. is up-to-date and correct.	.136	**.531**	.294	.313
The IRCTC's site never shares my personal information with other sites.	.031	.252	**.745**	.241
The IRCTC's site protects information about my credit card.	.134	.202	**.840**	.162
The IRCTC's site provides confirmation of executing online transactions.	.498	.236	**.614**	.126
The IRCTC authority gives me promote and relevant response of my queries and problems.	.253	.453	.196	**.525**
The IRCTC's site provides a phone number to reach the IRCTC.	.465	**.593**	.120	.260
The IRCTC's site has online customer service representatives.	.026	**.750**	.074	.319
The IRCTC's site provides language option so as to personalize the site as per personal requirement.	.217	**.728**	.258	.147
Desired products and services can be easily found using key word search option in the web site	.459	**.601**	.375	.010

The IRCTC site provides comprehensive FAQ section to help/ guide me for my common questions.	.438	**.632**	.406	.097
I don't have to scroll from side to side to adequately see the IRCTC's website page.	.387	.335	**.590**	.120
The website does not contain too many pop-ups and banner advertisement that make it difficult for me to look on the webpage.	.319	.032	**.481**	.305

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 7 iterations

Factor 1: Efficiency

This is most significant factor as it explains 49.169% variance of the total variance with Eigen value 10.325. This factor has exhibited heavy loadings for five items out of 21 items. It includes ease of use, simple, well organized, navigation and speed. After reviewing carefully, it was evident that all of these items related to efficiency of the website. Efficiency refers to the ease and speed of accessing and using the site (Parasuraman et al., 2005). Efficiency could also be defined as user's ability to access the website. So the most appropriate label for this factor is efficiency. It has also been identified as one of the major core dimension of E-SERVQUAL. Several research studies in recent past years (Khan, et al; 2009, Khurana 2009, Parasuraman et al., 2005) have recognized it as a major contributor in measuring e-service quality.

Factor 2: Responsiveness

It has been found as second largest factor with 6.378% variance explained and Eigen value 1.339. This factor consists of six items pertaining to correct and up-to-date information, phone number, availability of customer representative, language option, easy search and FAQs for help in problems. It can be easily observed that the items are revealing the responsiveness of the website. So the researcher named this factor as responsiveness. It could be defined as effective handling of problems with the help of website. In case of e-service quick service to users through website can make users feel more comfortable during purchasing without any interruption. Parsuraman et. al.(2005) have also highlighted it as an important recovery dimension for E-SERVQUAL. Yoo and Donthu ,2001; Khan et. al. 2009; Khurana 2009 and Hongxiu et. al. also asserted that prompt response to the problems of the customers largely determines customer evaluation of e-service.

Factor 3: Privacy And Security

This factor explains 6.025% variance of the total variance with Eigen value of 1.265. Five items are loaded to this factor pertains to security of credit card and personal information, confirmation of completed transactions, privacy from pop ups and no need to scroll from side to side. The researcher named this factor as privacy and security as it shows the company's will and ability to maintain the privacy of the user and protects their personal information. The security and privacy

dimension used by Zeithmal et al. (2000), involves the degree to which the customer believes the site is safe from intrusion and personal information is protected. This is also an important dimension of E-servqual and eTailQ e-service evaluation technique.

Factor 4: Reliability

This is the last factor accounts for 5.225% explained variance and have Eigen value 1.097. It consists of five scale items related with the availability of the website, operates without problem, desired products, and response to queries. This Reliability depicts the technical aspect of the website such as its 24 hours availability and functioning without any problem. Since all the items of this factor emphasize on technical part, the researcher decided to name this factor as reliability. According to some empirical studies (Parasuraman et al. 1985, 1988; Dabholkar 1996; Khan et al. 2009 and Khurana 2009) reliability is the most important dimension of e-service quality.

Following table depicts the summary of factor analysis. It shows name of factor, factor loadings, mean and cronbach's alpha. Cronbach's alpha is checking the construct reliability. If the value is greater than 0.65 it is reliable. The values of all the factors are greater than 0.65 so the constructs are reliable.

Table 5: Summary Of The Results

Factor No.	Factor Interpretation	Item No.	Variables	Factor Loading	Mean	Cronbach's Alpha
F1	Efficiency				**3.72**	**.886**
		1	The IRCTC site makes it easy to find what I need (with minimum data input).	.812	3.99	
		2	Simple for me to learn the handling of site.	.830	4.15	
		3	It loads its page fast	.522	3.01	
		4	Information at this site is well organized	.681	3.68	
		5	Overall, the IRCTC's site navigation is consistent and standardized	.653	3.79	
F2	Responsiveness				**3.43**	**.873**
		10	Information on the IRCTC's website about the tourism products and services etc. is up-to-date and correct.	.531	3.43	

|						
		15	The IRCTC's site provides a phone number to reach the IRCTC	.593	3.69	
		16	The IRCTC's site has online customer service representatives	.750	3.28	
		17	The IRCTC's site provides language option so as to personalize the site as per personal requirement.	.728	3.27	
		18	Desired products and services can be easily found using key word search option in the web site	.601	3.40	
		19	The IRCTC site provides comprehensive FAQ section to help/ guide me for my common questions.	.632	3.49	
F3	**Privacy And Security**				**3.85**	**.830**
		11	The IRCTC's site never shares my personal information with other sites.	.745	3.79	
		12	The IRCTC's site protects information about my credit card.	.840	3.92	
		13	The IRCTC's site provides confirmation of executing online transactions.	.614	4.19	
		20	I don't have to scroll from side to side to adequately see the IRCTC's website page.	.590	3.62	
		21	The website does not contain too many pop-ups and banner advertisement that make it difficult for me to look on the webpage.	.481	3.71	

F4	Reliability				**3.19**	**.846**
		6	The IRCTC's site is always available (i.e. 24*7*365 accessibility).	.815	2.89	
		7	The IRCTC's site operates without problem.	.648	2.86	
		8		.590	3.41	
		9	When the IRCTC's site promise to perform something it does so.	.414	3.37	
		14	It offers all required products and service I want	.525	3.44	
			The IRCTC authority gives me promote and relevant response of my queries and problems.			

Level Of Customers' Perceived Feeling of Satisfaction With Regard To E-Service Quality Dimensions

The figure 5.10 below, displays mean scores of customers' perceived satisfaction regarding derived dimensions:

Figure 1:
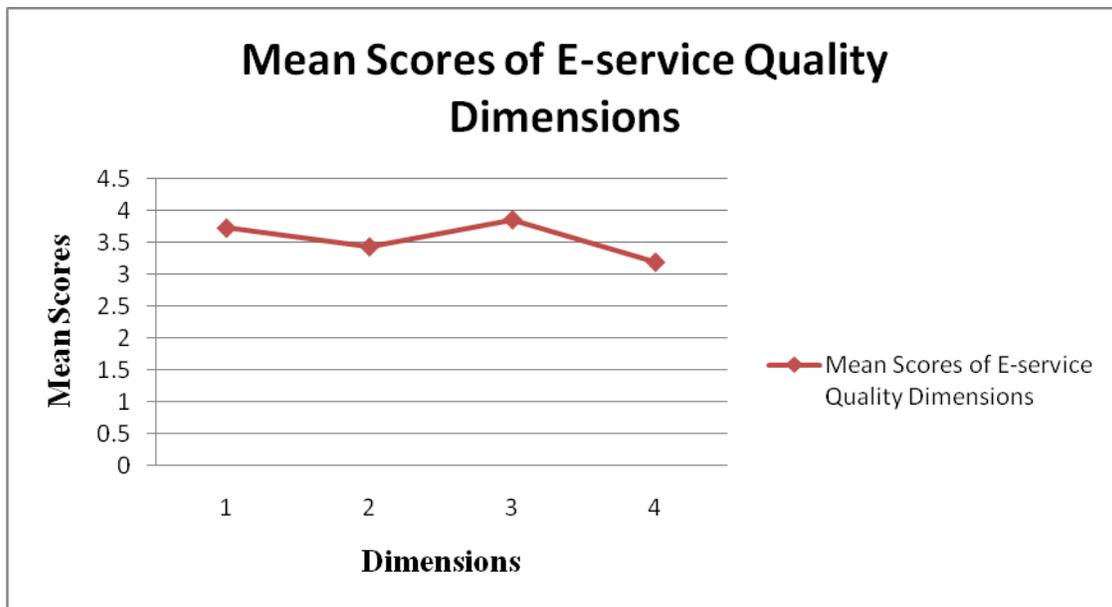
It can be observed from the figure 1 that privacy and security dimension scores the highest score of 3.85. It indicates that the users do not recognize considerable risk in online environment of e-service stemming from the possibility of misuse of their financial information and personal information. It is followed by efficiency, responsiveness and reliability with mean scores of 3.72, 3.43 and 3.19 respectively. All the mean scores of the dimensions are rated by the users between 'Neutral' and 'Agree' so the railways should pay attention for further improvement of these dimensions. Specially, railway should rectify operating problems of the website and it should run all the time 24*7*365 as the users tend to have low mean score of 2.86 and 2.89 respectively. In e-service, if site operates without any problem and 24*7*365 access is offered than it helps in improving the image of the e-service quality. It is good indicator that users found it very simple to learn the handling of website and satisfied with confirmation of executing online transactions.

Conclusion

To measure the e-service quality a 21 item instrument is devised after a thorough review of literature and exploratory investigations. Most of the statements adapted from E-servqual which is developed by Parasuraman et al., 2005. The perception of e-service quality was assessed on 21 items, measured on a five point Likert scale, anchored at 1: "Strongly disagree" to 5: "Strongly Agree". To extract the factors affecting e-service quality factor analysis is performed, using principal component analysis with varimax rotation via SPSS 16. Cronbach's Alpha confirms the reliability of all these extracted factors. The results bring out four factors namely; Efficiency, Responsiveness, Privacy and security and Reliability. Surprisingly the mean scores of the factors revealed that privacy and security is strongest dimension followed by efficiency, responsiveness and reliability. Furthermore, the findings highlight that managers should devise appropriate strategies to increase the speed of the website and its 24 hours availability.

Recommendations

 On the basis of current research findings several important recommendations for practitioners of e-service quality can be made.

First, the study indicated that among the various e-service quality dimensions 'Efficiency' is most critical and important facet of e-service quality. Thus, superior performance on the most critical dimension,' Efficiency' may be helpful in providing enhanced quality of service. Looking at this individual dimension, it is suggested to increase loading speed of the pages and installation of more effective servers. The network become very busy during the peak hours, so managers should provide discount on earlier booking or special offers during dip hours online reservations.

Second, the responsiveness facet of website is also a critical contributor to users' perceptions of e-service quality. After examining this dimension it is suggested that the customer care representatives should resolve the customer's complaints timely and that the customer's queries are taken seriously. The steps should also be taken to update the information on the website.

Additionally, there must be an opening to interact with other users through internet and learn about earlier users experiences.

Third, 'Privacy and Security' factor also appeared to play an important role in influencing the overall service quality as perceived by the users. Surprisingly, the results indicate that privacy and security does not have significant influence on users' perception of e-service quality. But, practitioners should avoid too many advertisements, pop-ups, banners etc. as they dilute the privacy of users, they feel interrupted in between. Too many banners, animation effects on the home page also distract the mind of the users. So the practitioners should provide a single spot for advertisement. It is also advisable that all the contents should be visible on a single screen as it irritates users to scroll the page again and again to see the things adequately.

Finally, 'Reliability' has emerged at the fourth place in terms of its importance. In this dimension managers should focus on providing superior technical function of the website without any operating problems. Last but not the least e-service should be 24 hours available as if users cannot use the e-service when they need, they will immediately switch to some other e-service.

Limitations And Suggestions For Future Research

The data was collected from the users in India. Thus, there is need to explore these results for other developing and developed economies. This may provide a better understanding of e-service quality dimensions across different economies. Present study excludes the voice of the corporate customers, so the further studies may explore the importance of e-service quality dimension for corporate customers. The study can be further extended to investigate the cause and effect relationship between customer satisfaction and retention. It would enhance the understanding for managers. The study has considered only four dimensions and other dimensions like attitude to e-service, trust of customers, ease of use, website design, empathy, experience have not been considered.

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