

MEASURING THE EFFECT OF E-SERVICE QUALITY IN ONLINE BANKING

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ABSTRACT

The words “Electronic Commerce” and “Internet marketing” are now normally used by business houses and consumers around the world as markets are recognizing the available opportunities for exchange function in the on-line business environment (Karakaya and Charlton, 2001). With the rapid change in the information technology, the frequency of human-computer interactions increases, which regards trust as an important factor between users and websites (Johnson, Bardhi & Dunn, 2008). Ajzen (1988) divided trust in technology into trusting beliefs and trusting intentions. This increasing frequency of human-computer interaction has paved the way for the banking industry to provide services to the banking customers online but also banks has to ensure about the expected quality of services can be delivered or not. According to Internet World Stats, India has occupied the third largest country in number of internet users around the world following China and USA on first and second positions despite having a less internet penetration rate as low as 8.5 percent. In the previous literature, it has been observed that retaining customers in online service is very difficult. Therefore, this research study aims at understanding the services quality factors and their effect on the satisfaction of customers in case of e-banking.

Keywords: E- Service quality, customer satisfaction, E-banking services

1. INTRODUCTION

The banking industry has tremendously changed in recent decades given the changes in consumer demand and technological advancements, particularly in computer and online technology, and competition from both banks and other financial institutions. In today’s scenario, the banking affairs increasingly depend on technological advancements and techniques and services adopted by the banks for providing to their customers. Various banks are providing their services via

different electronic and online channels that are acting as a substitute for traditional brick-and-mortar branch networks (Suoranta and Mattila, 2004).

With the introduction of latest technology and technological advancements in every field, internet has become the root for every business and other practices of business firms, delivery of service quality through electronic route for online trade becomes very vital issues for business houses dealing in service industry.

As technology changes the competitive scenario and the environment of the financial services industry, innovations in telecommunications are playing a significant role in the banking industry. Over the last few decades, and with the growth of e-banking in the upfront of banking industry, banks and financial institutions have paved the way into the next technological frontier: mobile access (Mallat et al., 2004).

The internet banking has changed the entire perspective the way world should see it. Now a days, it has been regarded as “need to have” rather than “nice to have” service. E-banking, therefore now has become an integral part for the developed and developing economy because of its capacity to provide cheapest services to the customers of banks. Not only these services are cost effective and result oriented but also provides a greater sense of satisfaction to customers in time saving and ease of use.

2. LITERATURE REVIEW

Technological advancements in the banking industry has been a principal source of competitiveness among the various banks and financial institutions. The use of technology has opened the ways for the banks to reduce their costs and achieve higher productivity and efficient customer relationships(Lee, Kwon and Schumann, 2005).Majority of the banks providing services around the world in developed and developing countries are using internet banking to cater to the needs and services of their customers. Yang (2001) and Zeithaml(2002), suggested that online services greatly affects the banks and customers relationship as far as customers trust is positive towards banks, therefore the banks should pay more attention on these-service parameters.

Acharya et. al., (2008) presented that US community banks which were more focusing on technological aspects and aggressively using interbank banking for online customers had generated more revenues and better profitability. Boehm(2008) in a study conducted at Europe concluded that customers were highly connected with internet banking rather than the services provided by the traditional form of

banks. One of the important feature of online banking is not only that it provides services from anywhere but also minimizes and reduces the idle time of customers that is one of the dominating way in the traditional banking system where customers has to wait rigorously in queue.(Milne and Boza, 1999) commented and state one of the basic problem of going online in case of banking is that customers lacks face to face communications, which sometimes in turns the customers to develop a mistrust in banking and customer relationship.

Due to the speedy expansion of Internet banking services, various researches have been conducted for measuring the impact of internet banking service quality in the banks in India. Internet banking has opened various opportunities for the banks as well as for the customers to use the banking facilities and services timely and cost effectively. The era of e banking in India has started with the use of ATM (Automatic Teller Machines) (Titrade Cristina and et al., 2008). E banking is also referred to as Internet banking, virtual banking or online banking (Mobarek, 2007). Internet Banking has seen the very rapid growth in the last decade in a growing economy like India. Therefore, it has paved the way for many researchers focusing on conceptualizing, measuring and studying the internet banking service quality.

As explained by Lewis and Booms (1983), service quality as “a measure of how well a delivered service matches the customers’ expectations” .In other words, it refers to the difference of customer’s perception of what product will provide and the actual delivery. Various researchers have identified various dimensions for measuring service quality in banks. Johnston (1995) talked about various dimensions and again Johnston (1997) has verified and given that online customers consider reliability and trust/security the dominating factors, and responsiveness, communications and competencies behind them.

Many of the researches has identified that the various quality dimensions in physical/ traditional banking are not prominent in e service quality for banking. Keeping online banking as a delivery channel of banking service, service quality dimension such as cleanliness or physical appeal or interiors of the bank may have negligible applicability for online banking users. Zeithaml et al., (2000) proposed 11 factors to measure e-service quality and Yang et al., (2004) proposed 6 e-service quality parameters. Parasuraman et al., (2005) later on, came up with ES-QUAL consisting of 4 factors used for measuring e service quality including with 22 items.

Customer satisfaction is very important parameter to be taken care of in case of online services, as it is very difficult to manage and retain the online customers loyal. Not only loyal but also not allowing them to switching off to different service

providers. In case of online services, there is no personal touch and interaction between the service provider and consumer, therefore, this lack in personal commitment too. A satisfied customer may be regarded as an unpaid brand ambassador. But on the contrary, if the service delivered by the organization falls below of expectation, then customers remain dissatisfied and may be a great threat to the positive word of mouth publicity (Zeithaml, Berry, & Parasuraman, 1996). Satisfaction level of customer is an evaluation that is formed by comparing the actual services taken delivered and expected level of services (Oliver, 1980).

In banking, which is always regarded as a relationship of trust and personalization, the deficiency of personal touch with the bankers, paved the requirement to understand the importance of technology and service quality for the satisfaction of the customers. Therefore, Bankers should have the information on how to retain their customers and ultimately how to make customers aware of the satisfaction level and finally converting them to satisfied customer, specifically in terms of online service quality, and in internet banking, satisfaction of customers should be treated on priority. "Customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service" (Saha and Zoha, 2005).

Table 1. E-service quality items

S. No.	Statements	1	2	3	4	5
Efficient and reliable services						
1.	Net banking delivers what I need.	[1]	[2]	[3]	[4]	[5]
2.	Net banking is easily availability for banking transaction	[1]	[2]	[3]	[4]	[5]
3.	Net banking enables me to complete a transaction in a quick way	[1]	[2]	[3]	[4]	[5]
4.	Information over website is arranged systematically	[1]	[2]	[3]	[4]	[5]
5.	Service taken by customers via Internet banking pages is fast	[1]	[2]	[3]	[4]	[5]
6.	Net banking has simple usability	[1]	[2]	[3]	[4]	[5]
7.	Net banking services are faster in fulfilling the promises than traditional banking	[1]	[2]	[3]	[4]	[5]
Site aesthetic						
8.	The information on web page is attractively shown	[1]	[2]	[3]	[4]	[5]

9.	The available information on webpage is well organized	[1]	[2]	[3]	[4]	[5]
10.	The info on the webpage is easy in understanding	[1]	[2]	[3]	[4]	[5]
11.	The e-banking website, its layout and colors are visually pleasing	[1]	[2]	[3]	[4]	[5]
Responsiveness						
12.	Net banking provides me with quick responses	[1]	[2]	[3]	[4]	[5]
13.	Net banking website handles customers request quickly.	[1]	[2]	[3]	[4]	[5]
14.	Net banking Quickly resolves online transaction problems	[1]	[2]	[3]	[4]	[5]
15.	Net banking provides suggestions incase of errors and unprocessed transactions	[1]	[2]	[3]	[4]	[5]
16.	Net banking provides solutions to my problems promptly.	[1]	[2]	[3]	[4]	[5]
Fulfillment						
17.	Arrangement of Internet banking services are easy to follow	[1]	[2]	[3]	[4]	[5]
18.	the services being delivered are exactly the ones which are promised	[1]	[2]	[3]	[4]	[5]
19.	Net banking portion of website works smoothly	[1]	[2]	[3]	[4]	[5]
20.	Internet banking transactions are always accurate	[1]	[2]	[3]	[4]	[5]
21.	Net banking quickly processes what I request.	[1]	[2]	[3]	[4]	[5]
Security/ trust						
22.	No disclosure of Customers personal Information	[1]	[2]	[3]	[4]	[5]
23.	Feel safe in internet banking transactions	[1]	[2]	[3]	[4]	[5]
24.	I am having confidence in the e-banking service	[1]	[2]	[3]	[4]	[5]
Satisfaction						
25.	I am delighted with my online banking services	[1]	[2]	[3]	[4]	[5]
26.	Transacting online is a enjoyable experience	[1]	[2]	[3]	[4]	[5]
27.	Net banking services are enjoyable	[1]	[2]	[3]	[4]	[5]
28.	Overall, net banking services provides me high sense of satisfaction	[1]	[2]	[3]	[4]	[5]

3. OBJECTIVES OF THE STUDY

In the previous literature, it has been observed that retaining customers in online service is very difficult. Therefore, this research study aims at understanding the services quality factors and their effect on the satisfaction of customers in case of e-banking .

4. RESEARCH METHODOLOGY

A survey method has been largely used to collect fresh data from the suitable population (Cooper and Schindler, 2013). We investigated the past researches to identify valid measures for this study and adapted prominent existing scales to understand the effect of e-service quality dimensions. With the aim to attain the objectives of this study, fresh data is collected using the questionnaires consisting : Part -1 of the questions including Demographics and e-banking usage services. Parts- 2 of the questionnaire included noticeable variables i.e. efficient and reliable services, site aesthetic, responsiveness, fulfillment, security and satisfaction which again sub- divided into 28 statements which directly related to e-service quality and satisfaction level. Respondents responses has been collected with the help of 5 point Likert scale. The samples were taken for the study and included 100 customers who use internet banking belonging to various banks of Mathura region. The samples collected were selected by using Convenience sampling technique wherein these respondents were selected from the population of the different age groups included in population.

5. DATA ANALYSIS AND INTERPRETATION

Primary data was taken from 100 respondents. Out of 100, 10 questions were not taken for the purpose of the study. 90 percent was the response rate used in this study. The incomplete and inaccurate replies are dismissed to have better proximity values in results. After collecting the raw data, the reliability of the questionnaire is measured and verified by using Cronbach's alpha. In order to find out the objectives, factor analysis technique is applied using SPSS 19.0

Table- 2. Factor Loading and Reliability test for study's variables

S. No.	Statements	Factor Loading	Cronbach's Alpha
Efficient and reliable services			
1.	Net banking delivers what I need.	0.709	0.889
2.	Net banking is easily availability for banking transaction	0.805	
3.	Net banking enables me to complete a transaction in a quick way	0.885	
4.	Information over website is arranged systematically	0.787	
5.	Service taken by customers via Internet banking pages is fast	0.692	0.893
6.	Net banking has simple usability	0.893	

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7.	Net banking services are faster in fulfilling the promises than traditional banking	0.885	
Site aesthetic			
8.	The information on web page is attractively shown	0.821	0.722
9.	The available information on webpage is well organized	0.759	
10.	The info on the webpage is easy in understanding	0.673	
11.	The e-banking website, its layout and colors are visually pleasing	0.764	
Responsiveness			
12.	Net banking provides me with quick responses	0.681	0.772
13.	Net banking website handles customers request quickly.	0.781	
14.	Net banking Quickly resolves online transaction problems	0.785	
15.	Net banking provides suggestions incase of errors and unprocessed transactions	0.678	
16.	Net banking provides solutions to my problems promptly.	0.634	
Fulfillment			
17.	Arrangement of Internet banking services are easy to follow	0.887	0.695
18.	the services being delivered are exactly the ones which are promised	0.881	
19.	Net banking portion of website works smoothly	0.776	
20.	Internet banking transactions are always accurate	0.692	
21.	Net banking quickly processes what I request.	0.743	
Security			
22.	No disclosure of Customers personal Information	0.691	0.878
23.	Feel safe in internet banking transactions	0.725	
24.	I am having confidence in the e-banking service	0.781	
Satisfaction			
25.	I am delighted with my online banking services	0.887	0.886
26.	Transacting online is a enjoyable experience	0.766	
27.	Net banking services are enjoyable	0.735	
28.	Overall, net banking services provides me high sense of satisfaction.	0.805	
Total Variance Explained- 68.4 %			

Table 3: Model Description

Model	R	R Square	Adjusted R Square	Std Error of Estimate
1	.678a	0.523	0.316	0.22180

Table 8 is $Y = 1.365 + 0.23X$ is defined by Regression Linear equation which shows, the influence by various other factors.

Table 4: Model Summary

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	5% Confidence Interval	
	B	Std Error.	Beta			-	3.022
(Constant a)						0.05	
X	1.365	0.655	0.534	2.011	0.044	0.02	0.811
	0.230	0.211		2.122	0.051	1	

a. Dependent Variable: Y

6. DISCUSSION

EFA (exploratory factor analysis) technique was applied on the various E-service quality dimensions. The measurement and analysis of the instrument was carry on the raw data from the replies of the respondents showed a 2-factor solution. The 2-factor solutions explained 68.4% of variance. Also, Procedures of principal component and varimax were taken to conclude the dimension of orthogonal factor. The criterion of 1.0 was apply in order to get the factor extraction whereas loadings of 0.40 were applied for item inclusion (Hair et al., 1995). To measure the effect of independent variable to the dependent variable, x (e-service quality) on y (customer satisfaction), Determination Co-efficient is used. The result of this study depicts that the e-service quality has affected 53.4% on the customer satisfaction, while the remaining 46.6 remained unaffected. The links between e-service quality factors and their effects on customer satisfaction are commendable for more depth reflection (Rod et al., 2009). Also, a greater in depth factors can also be studied for further investigation in order for banks to understand the effects and usability more effectively (Patsiotis et al., 2012).

7. CONCLUSION

This research study has validated the various dimensions of ES-QUAL which can be used for measuring the effect of e-service quality in case of online banking services by the banks operating in Mathura region. The study has validated the instrument taken for the study and was found reliable and affecting the customers satisfaction.

The study has shown that the two factors security/trust and efficient and reliable services has been the factors which respondents have felt the most important one. Besides these factors, other factors like site aesthetics, responsiveness and fulfillment also affected the customers satisfaction in online banking. Hence, we can conclude that e-service quality has significant impact on the satisfaction of online user in e-banking services.

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