E-Banking And Customers' Satisfaction In Public And Private Sector Banks In Karnataka: An Empirical Analysis

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Abstract

E-banking implies provision of banking products and services through electronic delivery channels. Today things are changing very fast and it is very high time for each bank to understand the expectations of the customers. Customer satisfaction and service quality are inter-related. Aims of the study are to examine how service quality of internet banking influence on customer satisfaction of Indian Overseas bank, Canara bank, Panjab national bank, ICICI and HDFC banks. An exploratory survey was conducted to investigate the impact of internet banking services quality on customer satisfaction in Karnataka Region. Convenience sampling was used and various kinds of internet banking customers were approached various parts of Karnataka. Data collected from a sample of 192 internet banking customers from Bangalore, Mysore, Mangalore, Hubli and Ballari. The results implicated that the internet banking service quality on all the dimensions have significant impact on the customer satisfaction of internet banking customers. Each of the dimensions namely efficiency, system availability, fulfillment, privacy, contact, responsiveness and contact are contribute 71% to the overall customer satisfaction in internet banking in Public and Private banks.

Key Words: Internet banking service quality, customer satisfaction, efficiency, responsiveness.

Introduction:

The traditional service quality dimensions cannot directly apply to internet banking, because it represents a different and unique service delivery process**(Saha and Zhao,2005).** E- banking has become important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology**(Gbadeyan and Akinyosoye,2011).** To understand satisfaction in the e-commerce context, we need to have a clear understanding of what it meant by account holders' satisfaction. Account holders' satisfaction is defined as a result of a cognitive and affective evaluation, where some comparison standard is compared to the actually perceived performance. If the perceived is lessthan expected, account holders will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, account holders' will be satisfied**(Lin,2003).** Effective account holders' satisfaction investigation is a very important precondition for e-commerce area to win in market competition **(Fasanghari and Roudsari,2008).**The rationale of this research is to recognize the impact of service quality factors on account holders' satisfaction in internet banking.

Internet banking is an electronic payment system that enables customers of Public and Privatebanks to conduct financial transaction on a website operated by banks and it includes retail banking, virtual banking and credit union

services. Online banking is also called as internet banking, e-banking etc. by some other terms (Khattab et al 2019). Internet banking is new channel has added into new concept of customer satisfaction. All Public and Privatebanks exist and strive to become an integrated system of the lives of their customers and therefore always strive harder to keep satisfying their customers through updated and technical channels of delivering by banks. There are many factors which have an impact on customer satisfaction and one of the most important being service quality of internet banking (Moghavvemi, S., Lee, S. T., and Lee, S. P. 2018). Customer satisfaction varies from industry to industry based on service quality. In present era, with the new emergence of internet as a major channel of service delivery, the need of scale to measure the high level of service quality in electronic media of services was very strong (Deraz et al 2019). Hence, service quality was taken up the study purpose specifically in terms of the e-services which lead to the development of different models that helped in measuring e-services in service sector and other allied services sectors.

Various models of e-service quality have brought up as a result of this. The important and major models that have been used to measure the e-service quality are: e-SQ & e-SERVQUAL (Zafar M, et al, 2011), WebQual (Lociacono E, et al 2000), E-S- Qual & E-Rec-SQUAL (Wolfinbarger MF, et al 2003)and many more models.

Review of Literature:

Singh Shamsher (2014) conducted a study on customer perception of mobile banking in the region of Delhi. The study revealed the technology as third wave of revolution after agriculture and industrial revolution. The adoption and impact of mobile banking on customer of different banks was examined carefully. The study concluded that the factors such as relative advantage, complexity, compatibility, observability, perceived risk and trial-ability influence mobile banking. It was also argued that adoption would not take place unless customers perceive the service to be useful.

Basavaraj (2021) in their study on "Customers preference and satisfaction towards banking services with special reference to Shivamogga District in Karnataka", pointed out that, after the implementation of government policies on globalization and liberalization, the banks started providing a variety of products and services to the customers. The customers can utilize the service offered to them only if they are aware ofit. The banker and customer have to know about one another. The banker has to understand the customers' needs and in the same way, the customer has to know about the numerous services offered by the banks

Kumar, N. Satheesh & Maliqjan, N. (2019) revealed that the growth of Information, Communication and Technology has revolutionized in various aspects of every human. The world at large is rapidly accommodating into the 'Net Age'. The growth and expansion of internet and information technology have facilitated the emergence of Electronic - Commerce. The main objective of the study was to examine the customers' attitude towards e-banking and to find out the level of satisfaction of the customers' towards e-banking services in Krishnagiri town. The study highlighted that ATMs and Credit Cards were the most common Value-added services utilized by the respondents. Chinnadurai, P.(2017). examined quality of internet banking services rendered by banks in India. It observed that reliability, empathy, responsiveness, tangible and assurance are internet banking service quality dimensions are major indicators to measure bank account holders satisfaction towards internet banking in private and nationalized banks in India. Study found that the significant relationship between responsiveness and account holders. Average

account holders satisfaction does not differentiate between responsiveness of different banks can be the result of different banks in our country.

Komal & Rani Vandana (2021)in their research on "Progress of banking in India: Customers' Perspectives" attempted to study various ways of banking electronically. The research was divided into four sections dealing with four aspects of Ebanking i.e., ATM, Internet banking, Mobile banking and Credit cards. It was concerned with the customer aspect of banking that is searching for customer satisfaction level. The study pointed out that there are immense opportunities in ebanking but the only need is to explore them.

K. Rajesh (2017) conducted a study on "Customers' perception on usage of internet banking". The study was carried out to validate the conceptual model of internet banking. The reasons were identified and the factors responsible for the non-adoption of internet banking were analyzed so that it could be used by more people. The results of the study revealed that education, gender, income played an important role in usage of internet banking.

Theoretical Framework

Present study used the E-S Qual and E-RecS-Qual model developed by Parasuraman et al (2005) as a reference to study the relationship of these e-service quality dimensions and customer satisfaction in the internet banking and this model was refined according to the needs and demands of the internet banking sector to suit usage in the study (Figure 1).

SERVQUAL

A 22-item instrument for measuring customers' expectations and perceptions from a service along five quality dimensions: tangibles, reliability, responsiveness, assurance and empathy. (Parasuraman et. Al., 2003)

E-SQ (E-S-Qual and E-RecS-Qual) Instrument

An instrument similar to the SERVQUAL scale, developed specifically for measuring online services (e-services) quality. It includes two scales: the E-S-QUAL scale consists of 4dimensions with 22 attributes, including efficiency, fulfillment, system availability and privacy and the E-RecS-QUAL scale which consists of 3 dimensions with 11 attributes, including responsiveness, website design and contact (Parasuraman, Zeithaml & Malhotra, 2005)

This model used for the present study consists of the following terms.

- Efficiency
- system availability
- fulfillment
- Privacy
- Contact
- responsiveness
- Website design

Based on the above model and its dimensions, a framework was developed for the present study to develop the relationship between E-service quality in internet banking in Public and Private Banks and customer satisfaction.

Figure1: E-service quality - Customer satisfaction in internet banking.

Objectives:

1. To examine the relationship between the customer satisfaction and the various internet banking services quality dimensions in Public and Private banks
2. To study the impact of the internet banking service quality dimensions on the customer satisfactions in Public and Private Banks.

Research Methodology:

Present research study was conducted using a structured questionnaire adopted from Parasuraman et al. (2005) and Vasya Kenova and Patrik Johansson (2006) it includes dimensions of E-S Qual & E-RecS-Qual and questionnaire comprised with four sections (Liu C & Arnett KP 2000).

- Customer demographics: questions were included to gender, age and education
- E-S-QUAL scale: Respondents in this section rated the website performance of each scale item used 5 -point Likert scale.
- E-RecS-QUAL scale: Respondents in this section rated the website performance of each scale item used 5 -point Likert scale.
- Customer satisfaction: Respondents were asked to rate their satisfaction level with E-service quality of the banks using a 5 –point scale.

Sampling:

Study examine how service quality of internet banking influence on customer satisfaction of Indian Overseas bank, Canara bank, Panjab national bank, ICICI and HDFC banks. An exploratory survey was conducted to investigate the impact of internet banking services quality on customer satisfaction in Karnataka Region. Convenience sampling was used and various kinds of internet banking customers were approached various parts of Karnataka. This gives that all the respondents had sufficient knowledge and experience in internet banking. The resulting sample comprised of 192 valid questions out of 250 respondents that were asked to survey. Present study is limited to Bangalore, Mysore, Mangalore, Hubli and Ballari.

Data Analysis and Interpretation

Table 1 Description of the variables

Variable	Number	Minimum	Maximum	Average	Standard Deviation	Variance
Efficiency	192	14	30	11.0931	2.6139	5.319
System Availability	192	12	30	91.5214	2.4889	6.230
Fulfillment	192	05	30	28.6190	2.994	11.917
Privacy	192	07	18	41.8120	2.5867	2.845
Responsiveness	192	63	141	39.0123	8.5764	91.149
Contact	192	26	65	98.1292	4.9165	28.225
Website Design	192	09	111	2.1298	3.8181	4.8721

It is known from **Table 1** that the average of variables reliability, empathy, responsiveness, tangiblesand assurance are equivalent to 11.0931, 91.5214, 28.6190, 41.8120, 39.0123, 98.1292 and 2.1298.Standard deviation of the entire variable is crossed 2.

Table 2 Reliability Test

Dimension	Cronbach's Alpha – (α score)
Efficiency	.931
System Availability	.739
Fulfillment	.873
Privacy	.912
Responsiveness	.765

Contact	.982
Website Design	.922

From Table 2 calculated Cronbach's alpha reliable test which measure the internal consistency. Where the all variable posted more than 0.70. This means that variables are reliable of internal consistency of the dimensions (Garson 2002).

The correlation analysis showed the various relationships that exist between various different variables and customer satisfaction in internet banking in Public and Private Banks. The detailed analysis of the correlations matrix is given Table 2

			EF	SA	FU	PR	RE	CN	CS
Spearman' srho	EFF	Correlation Coefficient	1.000	0.812**	0.840**	0.918**	0.903**	0.891**	0.671**
	SA	Correlation Coefficient	0.812**	1.000	0.625**	0.429**	0.591**	0.500**	0.628**
	FU	Correlation Coefficient	0.840**	0.625**	1.000	0.488**	0.599**	0.478**	0.649**
	PR	Correlation Coefficient	0.918**	0.429**	0.488**	1.000	0.458**	0.479**	0.679**
	RE	Correlation Coefficient	0.903**	0.591**	0.599**	0.458**	1.000	0.634**	0.663**
	CN	Correlation Coefficient	0.891**	0.500**	0.478**	0.479**	0.634**	1.000	0.541**
	CS	Correlation Coefficient	0.671**	0.628**	0.649**	0.679**	0.663**	0.541**	1.000
**. Correlation is significant at the 0.01 level (2-tailed).									

Efficiency and Customer Satisfaction

The first variable according to frame efficiency of internet banking in Public and Private banks, which refers to the ease of getting into the website of the banks and findings their requirements of products and services within it. The analysis of correlation between efficiency and customer satisfaction is 0.812. This value indicates that there is a very positive correlation between the variables at 81%.

System availability and customer satisfaction

System availability refers to correct technical functioning of the banks. Analysis of correlation table showed that the value of correlation between system availability and customer satisfaction is 0.840. This value indicates that there significant and positive relationship between the two variables.

Fulfillment and customer satisfaction

Fulfillment is the extent to which the site's promises about order delivery and item availability are fulfilled in Public and Private banks. Analysis has shown that the value of correlation is 1.00 is perfect positive significant relationship between fulfillment and customer satisfaction.

Privacy and customer satisfaction

Privacy includes providing security regarding data, credit card information and personal information regarding to customers. All the information should be keep securely. This study shows that privacy and customer satisfaction are positively correlated each other with the value of 0.918.

Responsiveness and customer satisfaction

Responsiveness refers to the customer reprehensive services offered to fulfill their requirement, handling customer queries and solve grievances of customers etc. Analysis shows that the value of correlation is 0.903 indicating that there is significant positive relationship between the two variables.

Contact and customer satisfaction

The availability of assistance through telephone, email or online banking transaction to customers. This dimension has the strongest correlation between the two variables is 0.891, which means that the customers are highly satisfied with banking assistance services. Null hypothesis

Website design and customer satisfaction

The website design is user friendly and ease of navigate to online customers etc will be taken in website design. According to correlation matrix there is significant and strong positive relationship between website design and customer satisfaction in internet banking. Website design has a correlation of 0.671 with customer satisfaction in Public and Private Banks

Regression:

The data was also analyzed through regression analysis and it helps to understand the impact of the e-service and quality dimension on customer satisfaction. The regression analysis shows in table 4.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.772	.143		5.390	.000
	EFF	.207	.027	.292	7.768	.000
	PRI	.319	.034	.398	9.333	.000
	WD	.053	.017	.116	3.148	.002
	RES	.045	.016	.100	2.728	.007
	SA	.061	.021	.106	2.847	.005
	CON	.104	.019	.187	5.403	.000
	FUL	.069	.014	.162	5.131	.000

a. Dependent Variable: CS

The values of the coefficients in the above table 4 reveals that the variables which have high and least impact on the customer satisfaction through the p value that exist of each variable. Coefficient analysis reveals that the efficiency, privacy website design, responsiveness, system availability, contact and fulfillment have the highest level impact on customer satisfaction as the p value is less than 0.05 for all the variables in the study. Hence, it's concluded that these all the dimensions contribute highly towards customer satisfaction in Public and Private Banks.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712^a	.715	.704	.34272
Predictors: (Variables),,PRI,CON,SA,FUL,RES,EFF				
Dependent Variable : CS				

The value of R square at 0.712 shows that the 71% of the variation in the customer satisfaction can be attributed to the e-service quality dimensions while as the other 29% of the customer satisfaction is due to other factors than the e-service quality of the Public and Private banks. Hence, it is clearly indicates the above results that internet banking service quality does not have an impact on the customer satisfaction in internet banking in Public and Private Banks.

Conclusion:

This research study has been carried out based on the previous literature, reliability, empathy, responsiveness, tangible, and assurance as e-banking service quality dimensions were identified and proposed indicators to measure account holders' satisfaction towards internet banking services. This empirical paper aims to make contribution to the existing (Liu C, Arnett KP 2000, Zafa et al 2011, Katri K 2003,

Parasuraman et al 2005) knowledge by investigating the impact of internet banking service quality on customer satisfaction in Public and Private banks at Bangalore, Mysore, Mangalore, Hubli and Ballari. There are seven dimensions (Efficiency, System Availability, Fulfillment, Responsiveness, Privacy, contact and website design) of the internet banking service quality were took for the study. The empirical results show that there is direct relationship between internet banking service quality variables and customer satisfaction in Public and Private Banks. The study revealed that efficiency, system availability, fulfillment, responsiveness, privacy, contact and website design are the determinants of the internet banking service quality in customer satisfaction. Hence, it's concluded that these all the dimensions contribute highly towards customer satisfaction in Public and Private Banks.

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