

## Impact Of E-Banking Service Quality On Customer Satisfaction: A Case Study Of ICICI Bank, Visakhapatnam

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### Abstract

**Purpose** - This paper aims to know the perceptions of the respondents on service qualities like Reliability, Efficiency, Accuracy, security, and Easy & convenient of E-Banking which influence the satisfaction of the customer in ICICI bank, Visakhapatnam.

**Methodology** - The study is based on both primary and secondary data collected from the customers of various branches of ICICI bank in Visakhapatnam. In the case of primary data, a total of 384 questionnaires are administered among E-Banking customers of ICICI, Visakhapatnam. ANOVA, the t-test, Factor analysis and multiple regressions are used to analyze the data.

**Findings** – The reliability on various aspects of E-banking services like information, and content of the website and transaction processes are very reliable. Around 70 percent of ICICI customers are either extremely satisfied or satisfied. The satisfaction of customers of ICICI on the efficiency is around 50 percent. Surprisingly 20 percent of the respondents are neutral about efficiency of E-banking services. Internet banking application security features about online banking are perceived as less acceptable by the respondents of ICICI. I.T assistance regarding online banking of ICICI is perceived as trustable, no need to worry with respect to automatic timeout feature, unregistered third party, logging information, and alert, password policy management, session management etc given by ICICI. And the majority of the respondents felt that the ICICI bank making the banking operations as easy & convenient to their customers.

**Originality/value** – This study examines the perceptions of the respondents on various service qualities of E-Banking operations of ICICI bank ltd, Visakhapatnam.

**Keywords** – Service Quality, E-Banking, Customer satisfaction, ICICI

**Paper Type** – Empirical paper

### INTRODUCTION

In the post liberalization era, with the deregulation of the Indian economy, the financial service sector witnessing a complete metamorphosis and technology is playing a very significant role in this record. Over the last decade, India has been one of the fastest adopters of information technology in all sectors of the economy; among this banking sector is one, particularly because of its capability to provide a software solution to organizations around the world. Information technology provides an excellent support to the banking in India to develop most in technology in mobile banking, telephone banking, online banking, and electronic commerce areas. Also, this technology is helps in growing largely by mergers and acquisitions which can be done by communication and technology. Technology is playing a major role in increasing the efficiency, courtesy, and speed of customer service. Moreover, India is aiming at digitalization. So importance for e-banking is ever increasing. It is said to be the age of E-Banking.

Enterprises are adopting strategies aimed at developing a competitive advantage based on enhanced customer value in terms of product differentiation, quality, speed, service, and costs. Using the Internet is more efficient than using other distribution media because banks are looking for an increased customer base. To target the customers at different demographical segments, multiple segments in promotion is effective and will cover the total base. The banks are not in a position of

looking their customers to their competitors. Interestingly, online delivery will offer best suitable customized services which are needed by every customer. Mass customization happens effectively through Online Banking. Customization is a practice which can decrease cost and time compared to routine time. Online Banking means fewer staff members, smaller infrastructure demands, compared with other banking channels. Online Banking provides a convenient and effective way to manage finances that are easily accessible 24 hours a day, seven days a week. In addition, information is up to date.

Even though there are many advantages with E-Banking, the major concern with E-Banking is security. Many of the customers do not have confidence with E-Banking services and they think it is a public network and it has lack of security and privacy. Some of the security issues are hacking, sharing of personal details with other banks and agencies, theft of very confidential information etc. Basically, the truth is that the banks are providing best security practices. Only thing is there is less awareness levels on the security issues of E-Banking services. They are identification and authentication, encryption, and firewalls. In this process, the online will take internet address then it ask login-id and a password to authorize/access the user into his/her account, later, a message between customers and online banks are all encrypted so that a hacker cannot view the message even if the message is intercepted over the Internet.

Internet banking is offering lot of services with a single mouse click. Still some of the customers will go with traditional banking only because of security and privacy. But there are many advantages when the customer shifts from the traditional method of banking to e-banking. The major advantages are convenience, availability, transaction speed, efficiency, effectiveness, cheaper alternative.

E-banking is growing due to its advantages over traditional banking. The growth of e-banking is possible mainly through the penetration of the Internet. There is tremendous growth in the usage of internet in India. In the year 2000, the percentage of internet usage is just 0.5 percent of the total population. This was increased to 18 percent by the year 2014. And it is 433.4 million by end of June 2019. By 2018 the internet users in Rural India were 280 million.

## **Theoretical Background**

Electronic banking is a high-order construct, which consists of several distribution channels. E-banking is not only a medium for banking; it is an internet based platform which uses a high speed internet connection for uninterrupted services. However, the most general type of electronic banking is banking via the Internet, in other words, Internet banking. The term electronic banking can be described in many ways. Electronic banking is a medium of banking which can provide any kind of banking information through a computer / telephone / mobile / other mediums. In higher levels, we can say that customers can access their bank accounts to transact banking services. Also, in advanced level, we can say that, it is called internet / online banking because it provides various services like accessing account information, fund transfer, share transactions, buying financial products through online with a single mouse click through 24 X 7. The terms Internet banking and online banking are often used in the literature to refer to the same things. Nowadays the Internet is the main channel for electronic banking. Electronic banking is basically can be done through the mediums like personal computer with computer, telephone, and mobile. Daniel (1999), it is important to remember that Internet Banking is different from PC Home Banking. The obvious difference is that Internet Banking is browser-based, whereas PC Home Banking requires customers to install a software package assigned by the bank on their PC. Moreover, PC Home Banking allows customers to do their banking services only on PCs that have been installed the assigned software package, such as include Intuit, Inc.'s Quicken and Microsoft Corp.'s Money.

Many researchers have done research on E-Banking. So, different researchers defined in different ways. But, the common thought of the authors is, internet offers many services through online. Many of the customers access these with smart devices (Suriya, Mahalakshmi & karthik, 2012).

Karjaluo et al. (2002a) suggested that the main electronic delivery channel in banking is the

Internet, accessed via personal computer. Telephone banking, TV-based banking, and managed network do not play such a big role in banking today. Karjaluoto in 2002 have expected that the banking with personal computer will be converted into wireless with mobile technologies. Thus, as Wah (1999) points out, electronic banking does not necessarily have to be on a computer screen. It can be on the tiny screen of a mobile phone or any other wireless device. With these wireless applications, customers can consult their bank account balances and transaction histories, initiate payments or orders to buy and sell securities, and also send an e-mail to their banks.

### **Concept of Customer Satisfaction:**

Customer satisfaction process arises at post purchase of a product. It tells us the customer's feed back in terms of various aspects like quality, quantity, consumption, service, repeat purchase and brand loyalty etc (Churchill & suprenant, 1982). Oliver (1980) found that, the feeling of satisfaction can get by comparing the expectations of a consumer with original performance of the product. Tse & wilton defined customer satisfaction as "customer response to the evaluation of the perceived difference between expectations and final result after consumption". "Satisfaction can also be described as the feedback of a post-purchase assessment of certain service/ product's quality, and compared with the expectation of the prior-purchasing stage" (Kotler & Keller, 2011).

**Dimensions of E-Banking services effecting Customer service:** Many scholars have studied on E-banking factors which effect customer satisfaction. Some of the following studies which affect customer services are here under: according to Zeithamal and Berry (1985) speed in performing in the E-Banking services creates customer satisfaction. Efficiency in terms of quick speedy service is also confirmed by wirtz and bateson (1995) and khadem & Mousavi (2013). Liao and cheung (2002) identified that the reliability as one of the most important features that customers seek in evaluating their E-Banking services quality. Many studies are said that the major factors which affect customer satisfaction are reliability, efficiency, accuracy, security and easy & convenience.

### **E-banking services**

**Bill payment service:** The various payment operations are providing by the banks. These are different to bank to bank. In this context the banks may have tie-ups with various other companies to provide these services. These provide various bills payment like electricity, telephone bills, mobile bills, train reservations, flight reservations, insurance premiums etc. to pay these bills, a simple one-time registration for biller should be done. Once some instructions are set, online payments can be done. It is easy to pay any bills, it takes less time, it is accuracy more interestingly the banks can not charge for many services.

**Funds transfer:** Any amount can be transferred from one account to another of the same or any another bank. Customers can send money anywhere in India. Payee's account number, his bank and the branch is needed to be mentioned after logging in the account. The money transfer can be then done in a fraction of seconds with very minimal charges. But, in traditional method, the money transfer may take long time and need to visit the branch. In the words of ICICI, the major popular services of them are bill payments and fund transfer facilities through online.

**Credit card customers:** Credit card users can use the online services for various reasons. They may apply for a loan with credit card payment history through online, they can ask to increase the credit limit through online, they can pay any bill which includes credit card bill, they can request any card, they can stop the payment, block the card, can give a complaint about any un-authorized traction through online.

**Railway pass:** Indian railways have a tie-up with ICICI bank to railway pass renewals. Anybody can apply or renew their local train passes through online. The pass will be delivered to the customer at their doorsteps. But the bank is offering this facility in the limited cities. The bank authorities saying that, they will spread the facility to the other cities too. Right now, this service is available in Pune, Thane, Mumbai, Surat, Nasik. The ICIC bank is charging a minimal amount of Rs. 10 + 12.24 percent of service tax for this transaction.

**Investing through Internet Banking:** a customer can open a savings bank account, fixed deposit, current account, demat accounting. Any of the above accounts can be opened and can do transactions through online. Online is very useful in doing easy transactions in share market. Now investors with

interlinked demand account and bank account can easily trade in the stock market and the amount will be automatically debited from their respective bank accounts and the shares will be credited to their demand account.

E-banking is beneficial for both the financial institutes and customers. To survive in this competitive world, a commercial bank should offer the best products, with quick service, with complete security features and should be up-to-date.

### **Research Gap:**

Many reviews are on the penetration of internet banking, perception on internet banking, services and satisfaction levels of e-banking, modern banking services, problems and prospects of E-Banking, adoption of E-Banking, E-Payment systems, mediums of E-Banking, security issues, operations of E-Banking. It is clear from the review of the literature, that E-Banking is beneficial for both the financial institutes and the customers. To survive in this competitive world, a commercial bank should offer the best products, with quick service, with complete security features and should be up-to-date. It is evident from the literature review that there are no sufficient studies on service quality dimensions of E-Banking in Visakhapatnam. So it is decided to take up internet banking services provided by ICICI. I have chosen ICICI for my study as this is technologically advanced in private sector. As it is not possible to cover the total customer base of ICICI, my study is confined to a sample of ICICI in Visakhapatnam which is a fast growing city in Andhra Pradesh.

It should provide the technological services which are reliable, efficient, accuracy, secure and easy & convenient. Therefore, the researcher tried to assess the customer's satisfaction on the above said factors of e-banking. Based on the above discussion, the proposed hypothesis is

**H<sub>01</sub>:** There is an association between the efficiency of E-Banking services and customer satisfaction.

**H<sub>02</sub>:** There is an association between the reliability of E-Banking services and customer satisfaction.

**H<sub>03</sub>:** There is an association between the security of E-Banking services and customer satisfaction.

### **Methodology**

The study is based on both primary and secondary data. The major objective of this study is to know the satisfaction levels of the respondents on various service quality measures of E-Banking of ICICI Bank. Hence, the primary data has been collected from the customers who use e-banking services of ICICI, Visakhapatnam. In the case of primary data, a total of 383 questionnaires are administered among e-banking customers of ICICI, Visakhapatnam. The secondary data is collected from Articles, Journals, Various websites and annual reports of ICICI bank.

### **Sampling and Statistical Techniques**

This study has used a convenience sampling technique to collect primary data. Convenience sampling is a statistical method of drawing representative data by selecting people because of the ease of their volunteering or selecting units because of their availability or easy access. There are both advantages and disadvantages with convenience sampling. The major advantage with convenience sampling is the free availability and quick response in the collection of data. The major drawback is less accuracy. Sometimes, it may not represent the population and it might be biased. Under this study, the researcher directly meets the customers according to their convenience and collects the data. Thus in this study, there is a finite number of population and their convenience is known.

According to the records, there are more than one lakh customers are using net banking facility at all branches of ICICI bank. The sample according to the sample determining formula at 95 percent of confidence level and 5 percent of permissible error is 384. Data analysis is done using SPSS (Statistical Package for Social Science) version 20.0. The data has been analyzed with the help of required statistical tools such as descriptive statistics, frequency tables, percentage, ANOVA, t-tests, factor analysis and regression analysis.

### Reliability and Validity

The reliability and validity is confirmed by cronbach's alpha. Extensive literature reviewed was done on the basis of a total of 5 parameters is identified with 20 parameters with a 5 rated likert scale. Then to maximize the reliability and validity of the questionnaire was pre-tested on a small group of respondents before being finalized. Based on the feedback and results of the feedback, the reluctant questions were removed. Generally cronbach's alpha value more than 0.70 represents the validity of the scale and it statistically acceptable.

S.No	Dimension	No. of items	Cronbach's Alpha value
1	Reliability	4	0.79
2	Efficiency	4	0.76
3	Accuracy	4	0.78
4	Security	3	0.72
5	Easy & Convenient	5	0.89

### Discussions and Implications

Satisfaction levels of the respondents on various services qualities of E-Banking are analyzed and shown below.

#### (i) Reliability:

E-banking in India is very reliable due to advanced technology, support from the government agencies and competitive advantage of banks. The satisfaction of respondents on the reliability of various aspects of E-banking services, in general, is in the Table (i). The websites of banks, information, and content of the website and transaction processes are very reliable according to the respondents as shown in the Table. Around 70 percent of ICICI customers are either extremely satisfied or satisfied. But, in the case of the reliability of information and content of the website of ICICI, only 54.8 percent of their customers are satisfied and quite a good number (70 respondents) accounting for 28 percent are neutral.

**Table (i): Satisfaction on E- banking Service Quality**

(Figures in No's)

E-banking service quality	Bank	Extremely satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
Reliability of website	ICICI (384)	45 (11.6)	216 (56.4)	98 (25.6)	18 (4.8)	7 (1.6)
Reliability of Information and content of website	ICICI (384)	34 (8.8)	177 (46.0)	107 (28.0)	46 (12.0)	20 (5.2)
Reliability of transaction process	ICICI (384)	65 (16.8)	181 (47.2)	87 (22.8)	37 (9.6)	14 (3.6)

Source: Survey, Note: Figures in parentheses indicate percentages

#### (ii) Efficiency

The efficiency of E-banking lies mainly in the quick accessibility to the website (fast login), proper functioning of Cards, smooth transfer of funds and electronic clearing service. The satisfaction of customers of ICICI on the efficiency of E-banking is presented in the Table – (ii). Around 62 percent of ICICI respondents is either extremely satisfied or satisfied with the efficiency of their bank's E-banking whereas around 50 percent respondents are satisfied with their bank's efficiency in rendering e-banking services. Even the number of respondents who are neutral about the efficiency is more in ICICI. Hence, it may be said that the respondents are more efficient than in E-banking services of ICICI.

**Table-(ii): Customer Satisfaction on service Quality-Efficiency  
(Figures in No's)**

<b>Efficiency</b>	Name of the Bank	Extremely satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
Faster login facility	ICICI (384)	46 (12.0)	195 (50.8)	98 (25.6)	28 (7.2)	17 (4.4)
Functioning of Cards	ICICI (384)	43 (11.2)	147 (38.4)	141 (36.8)	32 (8.4)	21 (5.2)
Smooth Transfer of Funds	ICICI (384)	44 (11.6)	161 (42.0)	109 (28.4)	54 (14.0)	16 (4.0)
Electronic Clearing Service	ICICI (384)	58 (15.2)	142 (37.2)	108 (28.8)	46 (12.0)	13 (6.8)

Source: Survey, Note: Figures in parentheses indicate percentages

**(iii) Accuracy**

Table-(iii) presents the satisfaction of E-banking customers on accuracy in solving their problems, maintaining error-free transaction records, electronic bill payments and service charges.

The satisfaction levels of ICICI with the problem solving, error-free transaction records, electronic bill payments and service charges respectively and the corresponding percentage of respondents of ICICI who are satisfied are 64.8, 61.2, 86.4, and 60.4

**Table (iii): Customer Satisfaction of Service Quality – Accuracy  
(Figures in No's)**

<b>Accuracy</b>	Bank	Extremely satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
Problem solving through instant info	ICICI (384)	52 (13.6)	196 (51.2)	75 (19.6)	32 (8.4)	29 (7.2)
Error-free transaction records	ICICI (384)	63 (16.4)	172 (44.8)	80 (20.8)	52 (13.6)	17 (4.4)
Electronic bill Payments	ICICI (384)	167 (43.6)	164 (42.8)	38 (10.0)	6 (1.6)	9 (2.0)
Service charges	ICICI (384)	64 (16.8)	167 (43.6)	92 (24.0)	37 (9.6)	24 (6.0)

Source: Survey, Note: Figures in parentheses indicate percentages

**(iv) Security**

Security is the top priority among all the issues pertaining to E-banking. The success of E-banking depends on the security of ATMs, E-payments and privacy and integrity. The satisfaction of customers on security issues are given in the Table - (iv). As shown in the Table the number of respondents who are satisfied is more in ICICI. But there is more number of respondents who are neutral about the security among the customers. It seems the customers are confused with the privacy and integrity of ICICI e-banking services as there are respondents (32.8 per cent) who are neutral about the privacy and integrity

**Table- (iv): Customer Satisfaction of Service Quality – Security**

<b>Security</b>	Name of the Bank	Extremely satisfied	Satisfied	Neutral	Dissatisfied	Extremely Dissatisfied
Security for ATMs	ICICI	86	164	80	32	22

	(384)	(22.4)	(42.8)	(20.8)	(8.4)	(6.4)
Security of E-payments	ICICI (384)	75 (19.6)	186 (48.4)	77 (20.0)	24 (6.4)	22 (5.6)
Privacy and Integrity	ICICI (384)	63 (16.4)	146 (38.0)	126 (32.8)	15 (4.0)	34 (8.8)

Source: Survey, Note: Figures in parentheses indicates percentage

**(v) Overall satisfaction of customers of ICICI bank**

The overall satisfaction level of ICICI was shown in the following table- (v). The average scores on different satisfaction level with different dimensions offered by their bank were analyzed in the following table.

The satisfaction level of **reliability** offered by the bank institution of ICICI Bank customers mean is 27.75. The test statistic value by t-test is 5.2732, the p-value is 0.00 and it is significant at 0.01.

The mean 18.0 have a better opinion about satisfaction level of **efficiency** offered by the bank ICICI. The test statistic value by t-test is 3.064; the p-value is 0.002. It is significant at .01 levels.

ICICI customers with a mean of 11.0 have a better opinion about **Accuracy** offered by the bank when compared with ICICI Bank. The test statistic value by t-test is 4.4501\*\*, the p-value is 0.00. It is significant at .01 levels.

ICICI customers with a mean of 11.12 have a better opinion about **security** offered by the bank. The test statistic value by t-test is 4.240\*\*, the p-value is 0.0000. It is significant at .01 level.

The mean for the perceptions on **Easy and convenient banking** offered by the bank ICICI is 14.83. The test statistic value by t-test is 3.1719\*\*, the p-value is 0.001. It is significant at .01 level.

**Table- (v) Overall satisfaction of customers of ICICI**

Dimensions of satisfaction on E-Banking Services	Name of the Bank	N	Mean	Standard Deviation	Standard Error Mean	t- value	P-Value
Reliability	ICICI (384)	384	27.75	4.760	0.312	5.2732**	0.000
Efficiency	ICICI (384)	384	18.01	3.412	0.222	3.064**	0.002
Accuracy	ICICI (384)	384	11.10	1.766	0.125	4.4501**	0.000
Security	ICICI (384)	384	11.12	1.701	0.125	4.2400**	0.000
Ease and convenience	ICICI (384)	384	14.83	3.113	0.190	3.1719**	0.001

\*P <.05, \*\*P< .01

The opinions of ICICI customers show that E-banking services are reliable, efficient, accurate and convenient and E-banking services of ICICI are secured. The p-values are showing that there are differences between the perceptions of the respondents on various dimensions service quality.

**Conclusion**

The respondents are using technological services in E-Banking. The major problem with electronic banking is security. The majority of respondents want to do online transactions. But due to insecurity, somehow they are not doing online transactions. So it is suggested that to develop appropriate technologies for encryption of data for secured transactions and also access control, data recovery plans should be used to protect all sensitive, high-risk e-banking systems, servers, databases, and applications. After that, it is needed to create awareness about security features among the people.

The success of E-banking depends on the security of ATMs, E-payments and privacy and integrity. The opinions of ICICI customers show that E-banking services are reliable, efficient, accurate and convenient and E-banking services of ICICI are secured.

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