

# Role of ICT in Indian Banking Sector - An Empirical Study in Rohtak District of Haryana

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**Abstract-** Information and communication technology (ICT) plays an imperative role for the revolution of the Indian banking industry. It has totally changed the way of business. These changes and development resulted in new delivery of channels for banking products and services such as Automated Teller Machines (ATMs), Telephone Banking, Internet-Banking, and Mobile banking etc. A large number of banks are making enormous investments in technology in order to continue expand their infrastructure, provide services to clients easily and also for increasing profits and competitiveness. The main objective of this paper is to find out the awareness, perception and the level of satisfaction of customers towards the use of technology in banking sector. The study has been conducted in Rohtak district of Haryana and based on primary data collected from a sample size of 105 respondents via questionnaire method. About 100 of them were found to be suitable for analysis. The results have been analyzed with the help of various statistical tools. The results shown high level of awareness among respondents and also they are benefited with the use of ICT Banking.

**Keywords:** Banks, ICT, Customer Satisfaction, India

## I. INTRODUCTION

ICT has been used broadly in banking. Traditionally, all the banking transaction has to be carried on within the particular geographical area. Due to globalization and technological innovation many revolution has been taken place in all the sectors of the economy-banking sector is no exception. The banks are recognizing the need to embrace technology in the area of products and services to compete successfully in the years ahead. There are various forms of Information and communication technological innovations and electronic delivery channels which are implemented by banks (Saranya et al., 2014).

ICT on banking is really not one technology, but an attempt to combine numerous different technologies. ICT is a network of networks. It implies the most practical use of information technology as means of worldwide communication. The net has redefined the methods of

communication, work, study, education, interaction, entertainment, health, trade and commerce etc. The flexible facilities and opportunities provided by the ICT led to the progress of electronic commerce (Jahangir et al., 2012).

Indian banking industry has observed an incredible development in the Informational Technology (IT) in last few years. Banking operations have become easier and customer friendly due to the technological enhancements (Solanki, 2011). The banks are also providing with lots of services which are the mixture of electronics and information technology, like, Computerization and networking, Core banking, Automatic Teller Machines (ATMs), Plastic money i.e. credit card, debit card and smart cards, Phone banking, Mobile banking, e- banking or net-banking, EFT, NEFT, RTGS etc. Reserve Bank of India has also adopted IT in endorsing the payment system's functionality and modernization on an ongoing basis to improve the efficiency of banking sector.

Globally, the banks are balanced to use technology that will steadily give new dimensions to the banking products, services and delivery systems (Al-Weshah and Ghazi, 2013). The changes that new technologies have brought to banking are vast in their impact on officers, employees, and customers of banks. Advances in technology are permitting for release of banking products and services more easily and efficiently than ever before - thus creating new bases of competition (Abbokar, 2015).

## II. OBJECTIVE OF THE STUDY

- 1) To assess the awareness and perception towards ICT in Indian banking sector.
- 2) To examine the level of satisfaction of customers towards the use of ICT in Indian banking sector.

## III. RESEARCH METHODOLOGY

The study has been conducted in Rohtak district of Haryana and mainly based on primary data collected from

a sample size of 105 respondents via questionnaire method. Convenience non- probability sampling method was followed. About 100 of them were found to be suitable for analysis. The data has been collected from the general public by means of well-structured questionnaire and was classified and analyzed carefully. The data relates to the month of December 2016 to March 2017. The analysis of data collected has been carried out by using Chi Square, simple frequencies, and percentages etc.

#### IV. LIMITATIONS

The study does not cover entire population in Rohtak due to limitation of time.

#### V. HYPOTHESIS

- 1)  $H_0$  = There is an association between the gender and the responses for the rating of technology oriented services provided by banks.  
 $H_1$  = There is no association between the gender and the responses for the rating of technology oriented services provided by banks
- 2)  $H_0$  = There is an association between the gender and the responses for the satisfaction with the level of security in using E-Banking services  
 $H_1$  = There is no association between the gender and the responses for the satisfaction with the level of security in using E-Banking services

#### VI. ANALYSIS OF DATA

- The table I show that a significant ratio of the sample was male members. Majority of the respondents belonged to the age groups of below 30years. Maximum of them were post graduate followed by graduation and higher education and were students.

TABLE I  
 PERSONAL PROFILE OF THE RESPONDENTS

Gender	Frequency	Percentage
Male	75	75
Female	25	25
<b>total</b>	100	100
Age	Frequency	Percentage
Less than 30	65	65
30-40	20	20
40-50	10	10
Above 50	5	5
<b>total</b>	100	100
Education level	Frequency	Percentage
Middle level	4	4
Matric Level	6	6
Higher education	18	18
Graduation	24	24
Post Graduation	36	36

Others	12	12
<b>Total</b>	100	100
Occupation	Frequency	Percentage
Public	17	17
student	35	35
IT	10	10
Professional	19	19
business	14	14
Retired	5	5
<b>Total</b>	100	100

Source: Primary questionnaire

- It is clear from the table II that 100 % respondents were aware about ICT.

TABLE II  
 CUSTOMER AWARENESS TOWARDS ICT

Awareness	Frequency	Percentage
Yes	100	100
No	0	0
<b>Total</b>	100	100

Source: Primary questionnaire

- The table III shows that out of 100 respondents, 75% prefer e-banking, 2% prefer traditional banking, and 23% prefer both. It is found that a large number of respondents prefer E-banking in the study area.

TABLE III  
 CUSTOMER PREFERENCE TOWARDS E-BANKING AND TRADITIONAL BANKING

Preference	Frequency	Percentage
Preference to E-Banking	75	75
Preference to Traditional Banking	2	2
Preference to both	23	23
<b>Total</b>	100	100

Source: Primary questionnaire

- The Table IV depicts that 80% users use ATM Card, 58% users use Tele Banking, 52% users use Credit Cards, 71% users use internet banking, and 34% users use Mobile Banking services. It is found that a large number of respondent use E- banking services in the study area.

TABLE IV  
 USERS OF E – BANKING SERVICES (AS IN % OF RESPONDENT)

Usage/services	use	Do not use
ATM Card	80%	20%
Credit Cards	52%	48%
Tele Banking	58%	42%
Internet Banking	71%	29%
Mobile Banking	34%	66%

Source: Primary questionnaire

- The Table V shows the respondents are benefited with the use of ICT Banking. A good majority of the

respondents (100%) was of the opinion that it saves time and get rid of risk of holding cash.

TABLE V  
 BENEFITS OF ICT BANKING

Ratings	Responses	Percentage of Responses
Saves time	100	12.36
Shopping Convenience	75	9.27
To make balance enquiry quickly	78	9.64
To check bank statements clearly	55	6.79
Any time withdrawal	95	11.74
No risk of holding cash	100	12.36
To transfer funds easily	95	11.94
Any time banking	78	9.64
Home banking	34	3.20
Economical	65	8.03
others	24	2.97
<b>Total</b>	809	100

Source: Primary questionnaire

- Table VI shows that out of 100 respondents, 62% have opinioned that the technology oriented services provided by the bank is good, followed by 19% satisfactory, 10% excellent, 4% unsatisfactory, and 5% inefficient. It is found that a large number of respondents rate the technology oriented service of the bank as good in the study area.

TABLE VI  
 RATING OF TECHNOLOGY ORIENTED SERVICES PROVIDED BY BANKS

Ratings	No. of Respondents	Percentage
Excellent	10	10
Good	62	62
Satisfactory	19	19
Unsatisfactory	4	4
Inefficient	5	5
<b>Total</b>	100	100

Source: Primary questionnaire

- Table VII shows that out of 100 respondents, 63% have opinioned that bank's operation is efficient, followed by 17% highly efficient, 13% neutral, and 7% inefficient. It is found that a good majority of respondents have opinioned that bank's operation is efficient after the introduction of computers in the banks.

TABLE VII  
 RATING OF BANK'S EFFICIENCY AFTER COMPUTERIZATION

Ratings	No. of Respondents	Percentage
Highly efficient	17	17
Efficient	63	63
Neutral	13	13
Inefficient	7	7

Highly inefficient	0	0
<b>Total</b>	100	100

Source: Primary questionnaire

- Table VIII shows that out of 100 respondents, 69% are satisfied with the level of security provided by bank, followed by 27% not dependable and 4% excellent. It is found that a majority of respondents are satisfied with the level of security provided by the bank for e-banking services.

TABLE VIII  
 SATISFACTION WITH THE LEVEL OF SECURITY IN USING E-BANKING SERVICES

Level of Satisfaction	No. of Respondents	Percentage
Excellent	4	4
Satisfied	69	69
Not dependable	27	27
<b>Total</b>	100	100

Source: Primary questionnaire

- Testing of Hypothesis  
 1) Table IX shows that since the calculated value is more than the table value, the null hypothesis is rejected. That is to say, there is no association between the gender and the responses for the rating of technology oriented services provided by banks.

TABLE IX  
 RATING OF TECHNOLOGY ORIENTED SERVICES PROVIDED BY BANKS

Ratings	male	female	Percentage
Excellent	7	3	10
Good	54	8	62
Satisfactory	9	10	19
Unsatisfactory	2	2	4
Inefficient	3	2	5
<b>Total</b>	75	25	100

$\chi^2$  calculated value = 14.63  
 For  $v = 4$ ,  $\chi^2_{0.05} = 9.488$  (at 2 degrees of freedom and 5% level of significance)  
 $\chi^2$  calculated value  $> \chi^2_{0.05}$  at 5% level of significance

Source: Primary questionnaire

- 2) Table X shows that since the calculated value is less than the table value, the null hypothesis is accepted. That is to say, there is association between the gender and the responses for the Satisfaction with the Level of Security in Using E-Banking Services.

TABLE X  
 SATISFACTION WITH THE LEVEL OF SECURITY IN USING E-BANKING SERVICES

Ratings	Male	female	total
Excellent	02	2	4

Satisfied	56	13	69
Not dependable	17	10	27
<b>Total</b>	75	25	100
$\chi^2$ calculated value = 3.82 For $\nu = 2$ , $\chi^2_{0.05} = 5.991$ (at 2 degrees of freedom and 5% level of significance) $\chi^2$ calculated value $< \chi^2_{0.05}$ at 5% level of significance			

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Source: Primary questionnaire

## VII. CONCLUSION

Without ICT business cannot succeed. Customer is a king in the present day banking. In order to retain the existing customers and winning the new customers, the banks are turning towards the technology for the help. Information and communication technology is the major advent in the field of technology which is used for access, process, storage and dissemination of information electronically. Banking industry is fast growing with the use of technology in the form of ATMs, on-line banking, Telephone banking, Mobile banking etc., plastic card is one of the banking products that cater to the needs of retail segment has seen its number grow in geometric progression in recent years. While the new entrants have the advantage of latest technology, the goodwill of the established banks gives them a special opportunity to lead the online world. This growth has been strongly supported by the development of in the field of technology, without which this could not have been possible of course it will change our lifestyle in coming years. ICT banking is widely used by people who know to access ICT. Banks have to take effective measures in providing guidelines to access ICT for banking, then customer's comfort zone can sustained. People have a threat in their minds about the safety of using ICT. Some people don't prefer ICT for cash transactions for the same. Banks can take necessary actions to guide people in securing banking activities. Banks can offer special training programs to enhance their banking services through ICT.

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