ISSN: 0971-1260
Vol-22-Issue-10-November-2019

Consumer Perception on E- Banking Security Threats- with Reference To Rural Markets

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Abstract

Recent advancements in technology during the last decade has had an essential impact on the bankingindustry, and the growth of internet has made the online banking grow and reach the rural areas. But very little attention has been paid to the factors that obstruct the acceptance of e- banking in rural areas.The present study for the same aforementioned reasons is undertaken to study the perceptions of rural bank customers regarding their awareness of the security threats and also the precautionary measures taken by them. The rural sector bank customer have been chosen as the sample for the reason that acceptance of e-banking technology according to statistical data reviews is much higher in the urban areas than rural areas.The objective of this paper is to analyze the customer perception towards e-banking, customer awareness regarding e-banking security threats, and to study the precautions taken by customer to prevent e-banking fraud.

Keywords*: e-banking, security threat, e-banking fraud*

Introduction

The banking industry is growing at a rapid speed and penetrating into the rural areas throughout India. With the advent of the internet, the services are reaching in all the directions. The business model of the banking sector has changed and the online banking has emerged and growing at a phenomenal rate in the recent years. It is felt that internet banking services are stimulating the growth of banking industry rather than the traditional banking (Sinha & Mukherjee, 2016).

As banking transactions move from an offline brick and mortar mode to online platforms, the security threats due to conducting transactions in the online mode pose a difficult barrier that needs to be overcome so consumers in the banking sector can make the transition to online banking platforms assuredly.

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E-banking has multifold benefits, the most important being convenience. If the e-banking transaction is conducted securely, the adoption rates may increase drastically even say exponentially. For the e-transaction to be transacted securely one needs to understand the threats that pose as barriers. At the same time there is an urgent need to study from the consumers point of view, their awareness regarding measures that as consumer one has to undertake so the bank transactions can be transacted securely.

The present study for the same aforementioned reasons is undertaken to study the perceptions of rural bank customers regarding their awareness of the security threats and also the precautionary measures taken by them. The rural sector bank customer have been chosen as the sample for the reason that acceptance of e-banking technology according to statistical data reviews is much higher in the urban areas than rural areas.

Objectives:

1. To study the customer perception towards e-banking
2. To study the customer awareness regarding e-banking security threats.
3. To study the precautions taken by customer to prevent e-banking fraud

Methodology:

A sample of 60 bank customers in the rural area of Anneparthy village, Nalgonda district,are selected basing on the convenience sampling method and the data is collected through a questionnaire.

Literature

There are four electronic banking channels: ATMs, touch-dial telephone banking, internet banking, and mobilebanking. Internet banking is a banking channel that allows consumers to do a wide range of financial and nonfinancialservices through a bank's website (Hoehle et al, 2012).
This relatively new banking transactions channel provides its users “round the clock” access to
bank services, decreased time, direct access around the world, lower costs and removing the anxiety due to cashcarrying (Santouridis and Kyritsi, 2014). Banking via internet has speared as a strategic reference to obtain higher efficiency, control of operations and cost reduction by substituting paper based and labor intensive methods with automated processes has resulted to higher productivity and profitability (Malhotra and Singh, 2009).For transactions leaded among an open network that may conclude huge money values, security mainly withregard to appropriate permission and secretly would tend to be that face of trust that matter the maximum (Liao andCheung, 2002). Because internet-based electronic banking includes the transfer of money, people will be especiallycareful in account and implementation (Liao and Cheung, 2002).

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Data Analysis:

I. An attempt is made to find out if there is any relation between the purpose for which they are transacting online and how frequently the customers are using e-banking services. Chi-Square test is used to analyze the relationship.

H0: There is no significant relationship between purpose of usage of e-banking and usage rate

H1: There is significant relationship between purpose of usage of e-banking and usage rate

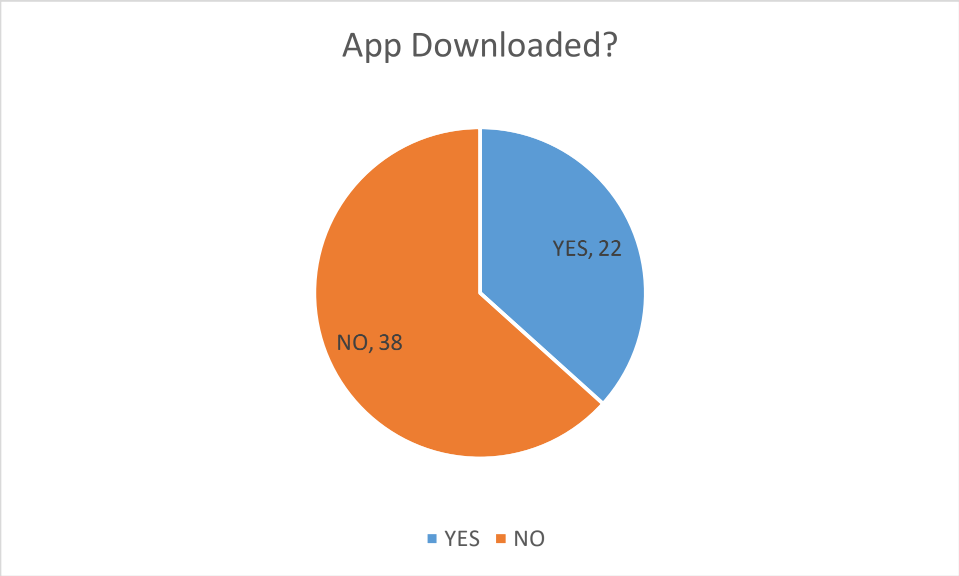
Chi – Square Test

	Very Frequently	Frequently	Rarely	Never	TOTAL
Online retail transaction (shopping/Movie, etc)	0	12	48	31	91
Money transfer	100	39	20	12	171
Tax payment	0	0	0	0	0
ATM	68	60	26	10	164
RD/ FD	0	0	0	0	0
DMAT account	0	0	0	0	0
Wealth Management	0	0	0	0	0
TOTAL	168	111	94	53	426

Chi-Square calculated value is 9.39(table value= 28.87) at 5 % level of significance, degrees of freedom=18. Since the calculated value is less than Tabulated value, null hypothesis is accepted. In rural areas, the customer's purpose is not related to the usage rate.

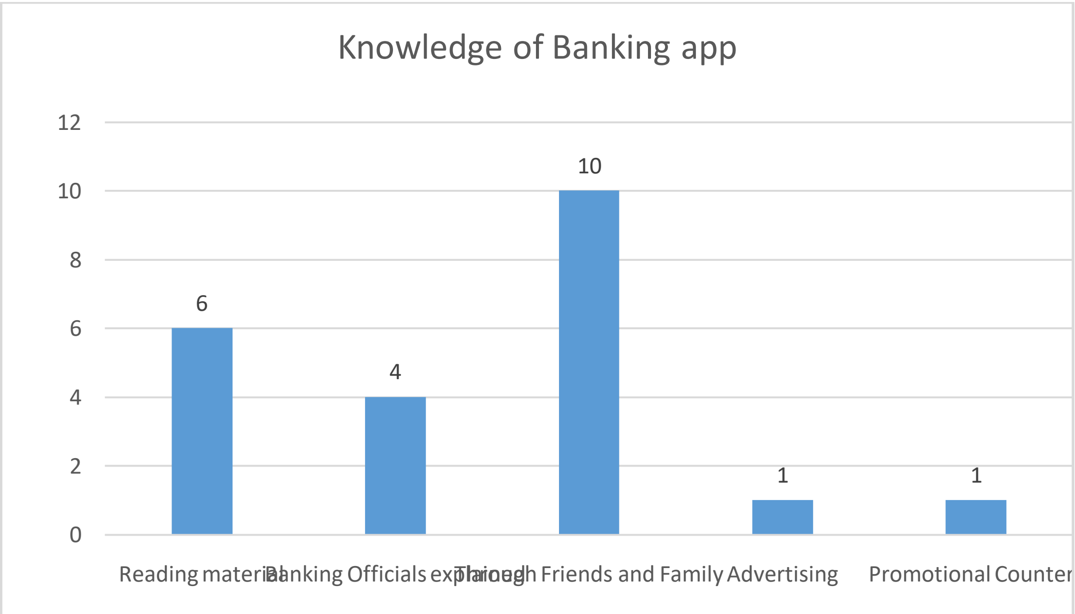
II. The knowledge of mobile apps and the usage of them has been analyzed.

	YES	**Percentage**	**NO**	**Percentage**
Have you downloaded the banking app	22	36.67	38	63.33



How did you come to know of the app?

Reading material	6
Banking Officials explained	4
Through Friends and Family	10
Advertising	1
Promotional Counters	1



Only 36 % of the sample have downloaded the app and 63 % are not using the mobile apps which are created by the banks for the convenience of the customers. Most of the customers who are using the app has got to know only from their acquaintances.

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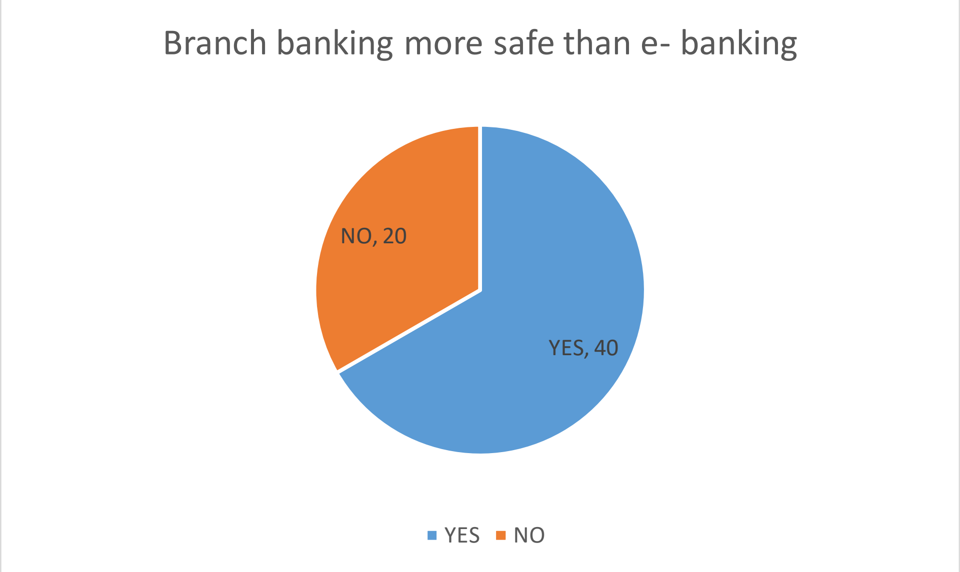
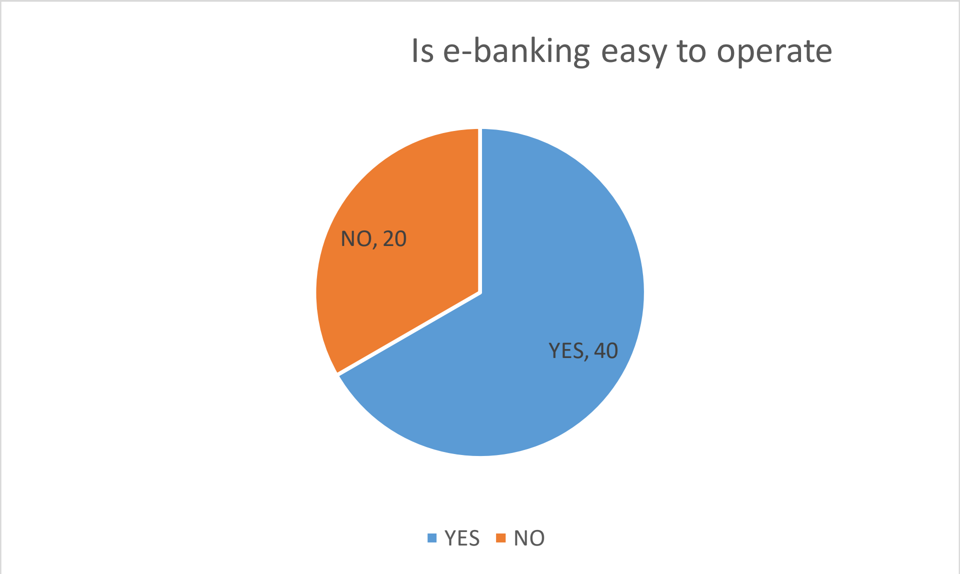
III. The perception about e- banking, whether the customers are feeling it as safe or not and whether they feel that the bank branching is safer than the e-banking has been studied.

	YES	NO
Branch banking more safe than e- banking	40	20



66 % of the sample felt that the branch banking is more safer than the e-banking. Only 34 % of the sample are confident enough to use the e-banking services .

IV. The perception about the user friendliness of e-banking has been analyzed.



	YES	NO
Is e- banking easy to operate	40	20

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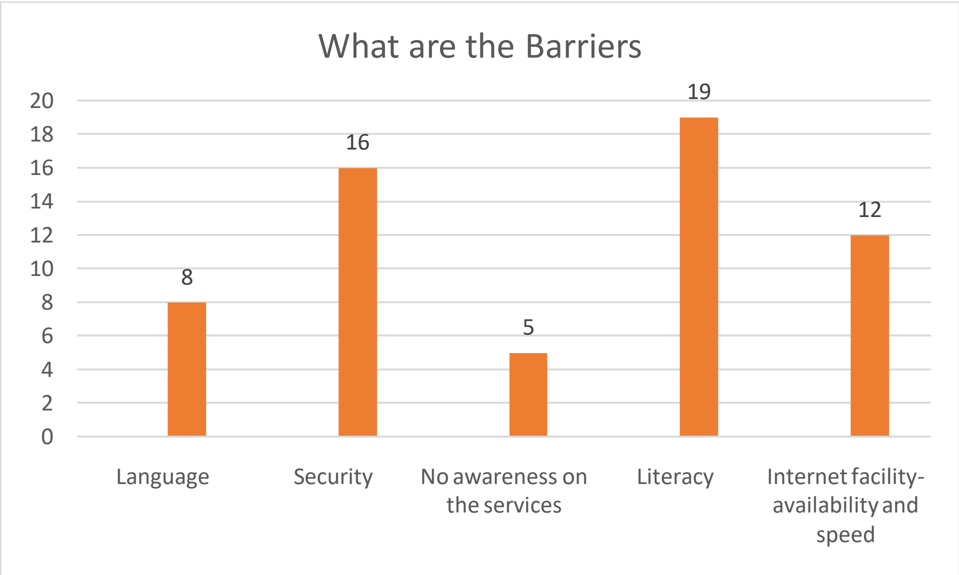
Most of the sample i.e., 66% of the sample has agreed that the e- banking is easy to operate and 34 % of the sample felt that it is not easy to operate.

V. Barriers of e- banking

What are the barriers	Number	Percentage
Language	8	13.33
Security	16	26.67
No awareness on the services	5	8.33
Literacy	19	31.67
Internet facility- availability and speed	12	20.00



Most of the sample i.e. 31% of the sample felt that the literacy rate is affecting the decision of branch banking over the e-banking. 26 % of the sample felt that they are more concerned about the security and this confusion of whether their transactions are fool proof is creating a barrier in moving towards e-banking. 20 % of the sample felt that the information technology infrastructure, i.e the availability of internet facility and the speed of data transfer over the internet in the rural areas is a barrier for the move towards complete utilization of e-banking services.

VI. Threats:

What are the Threats	No.	Percentage
Phishing	15	25
Identity Theft	12	20
Virus on the System	15	25
Data Theft	18	30

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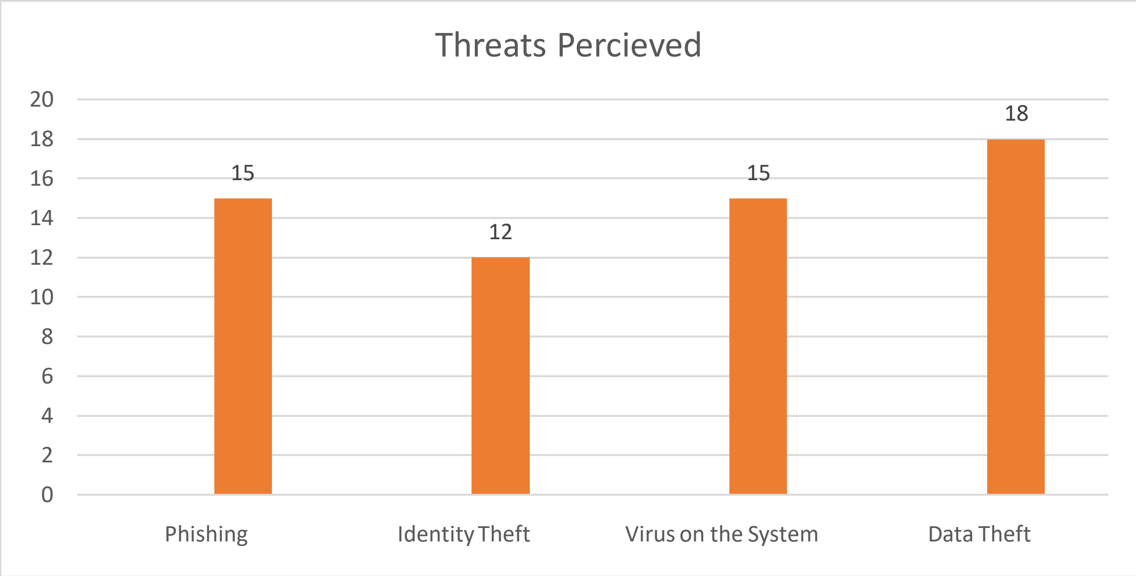

Data theft (Hacking) while transacting online is perceived as a major threat by 30% of the sample. 25 % of the sample are perceiving that the phishing(fraudsters acquiring information through telephone calls/e-mail/fake websites) is the major threat and another 25% of the sample felt that they are concerned with the virus that may attack their system(Malware) and 20% of the sample reported that identity theft (Someone gaining unauthorized access to the bank account) is posing a major threat when transacting online.

VII. Precautions taken:

Whether the customers of the rural areas were aware about the online frauds and whether they have the basic knowledge about the precautions to be taken while transacting online was analyzed and deatails are as follows:

PRECAUTIONS TAKEN	YES	NO
Have you ever received calls stating they are from the bank and have you ever conversed with them.	48	12
Never gave information regarding my a/c to anyone who calls	52	8
Never shared my OTP	59	1
I change my passwords often	2	58
I use different passwords across different applications	9	51

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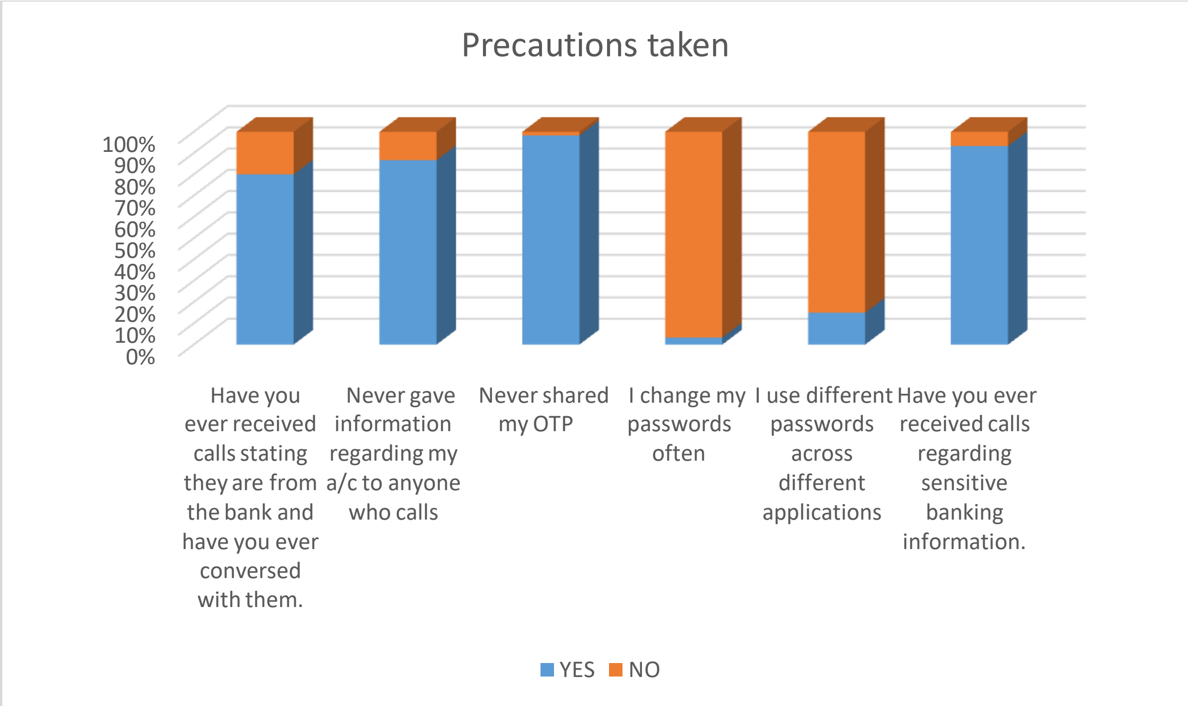
Have you ever received calls regarding sensitive banking information.	56	4



Most of the sample have made conversations when they received phone calls from the criminals who stated that they are calling from the bank , but, it is appreciated that most of the sample i.e. around 90% have not shared their account information to the people whoclaim that they are calling from the bank. Almost 99% of the sample have never shared their OTP through phones to unknown people. 96% of the people are not changing their passwords often. 85% of the sample are using the same password on different applications. 93% of the sample have received calls atleast once regarding sensitive banking information on the basis of other issues such as Lottery/ Free trips/ Prizes, etc,.

VIII. Knowledge of e-banking services:

When the question was raised regarding their access for the e-banking knowledge, the following results were found.

How did you acquire knowledge regarding e-banking

Reading material	20
Banking Officials explained	12
Through Friends and Family	25
Advertising	10
Promotional Counters	10

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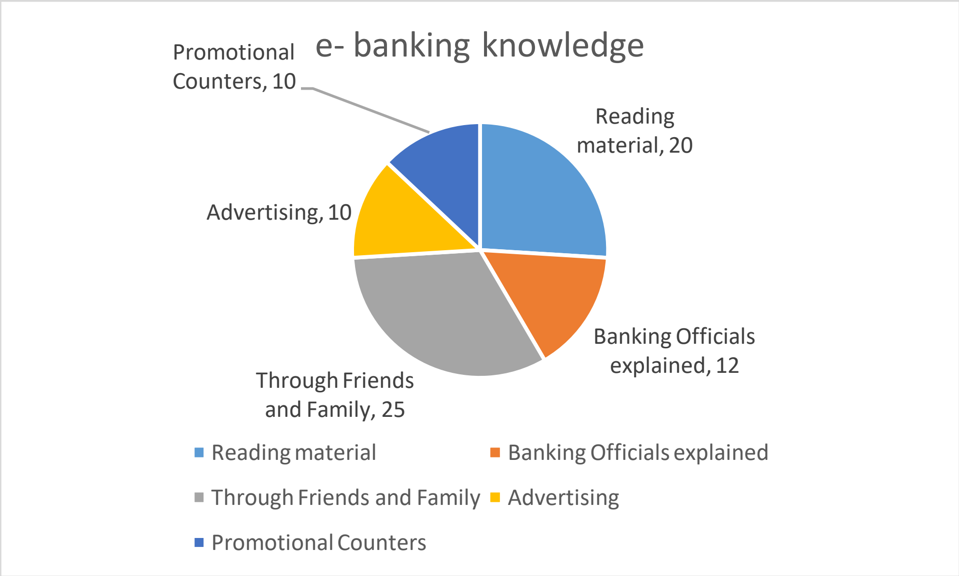
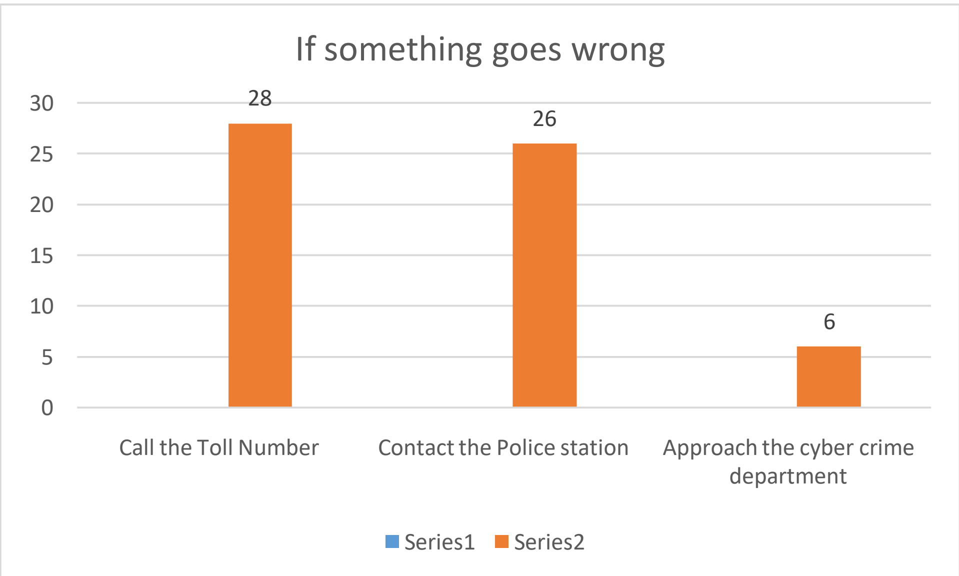


Friends and family are knowledge source for the 40% of the sample. 33% of the sample has read about the e-banking facilities. 20% of the sample got the information from the officials of the bank.16 % of the sample through advertisements and another 16% through promotional counters have gained this knowledge about e-banking services.

IX. Measures taken in Emergency

The measures taken by the customers , if something has gone wrong is studied and the analysis is presented below:

If something goes wrong in the e-banking transaction	
Call the Toll Number	28
Contact the Police station	26
Approach the cybercrime department	6



46% of the sample reported that they will call toll free numbers provided by the bank , if something goes wrong. 43% said that they approach police station. 10% of the sample said they approach cybercrime department, if in such cases.

Findings and Conclusion:

Data theft (Hacking) while transacting online is perceived as a major threat by 30% of the sample. 25 % of the sample are perceiving that the phishing(fraudsters acquiring information through telephone calls/e-mail/fake websites) is the major threat and another 25% of the sample felt that they are concerned with the virus that may attack their system(Malware) and 20% of the sample reported that identity theft (Someone gaining unauthorized access to the bank account) is posing a major threat when transacting online. It can be concluded from the study that most of the banking customers from the rural area to a major extent are afraid that hacking or in the sense data theft is the major threat when transacting online. This may be due to the fact that the consumers are unaware of the other security threats such as phishing, malware and identity theft based on their perception of the security threat, they have taken precautions. Most of the sample have made conversations when they received phone calls from the criminals who stated that they are calling from the bank , but, it is appreciated that most of the sample i.e. around 90% have not shared their account information to the people who claim that they are calling from the bank. Almost 99% of the sample have never shared their OTP through phones to unknown people. 96% of the people are not changing their passwords often. 85% of the sample are using the same password on different applications. 93% of the sample have received calls atleast once regarding sensitive banking information on the basis of other issues such as Lottery/ Free trips/ Prizes, etc,.

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