



Cyber-Attacks: How Safe Online Banking Is?

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ABSTRACT

This research paper is a critical study on how safe online banking is considering the factor of cyber-attacks in India. In today's era everything has become almost online and so the online banking. Most of the people now prefer to manage all their financial transactions online rather than handling them traditionally. But if the online transaction facility provided the users with comfort, it also possesses the danger of cyber-attacks. Cyber-attacks poses a question mark on the safety and trust of the millions of users in India.

To determine how safe online banking is, this research is conducted. Along with this the steps taken for ensuring cyber security has been analysed. A case study on the same has been analysed.

A survey has been done considering 100 users using online banking through a Google form to determine the same. The results gave a substantial positive effect of E-banking on user's satisfaction.

Key words: online banking, cyber-attacks, financial transactions, safety, trust.

1. INTRODUCTION

Online banking is a fast and convenient service that allows the users to do the transactions electronically rather than using cash while being at any place and at any time using internet. Different services are available that provides the users with the same like Paytm, Google pay and many other applications. But at the same time safety raises a big concern here that how safe all this is. Cyber-attacks are raising concerns as they involve identity stealing, illegally stealing important data or money laundering.

2. LITERATURE REVIEW

S.no	Author	Year	Topic	Publication
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1.	S.C. Gupta	2018	Fundamentals of Statistics	Himalaya Publishing house
2.	BusinessToday	2019	SBI data leak: What happened? What can you do? All you need to know	BusinessToday.In
3.	CR Kothari Gaurav Garg	2019	Research Methodology Methods and Techniques	New age international publishers
4.	Steve McKillup	2019	Statistics Explained	Cambridge University Press

3. OBJECTIVES

1. To determine whether online banking is safe or not
2. To analyse the cyber security in India

4. HYPOTHESIS

H0: Online banking is safe

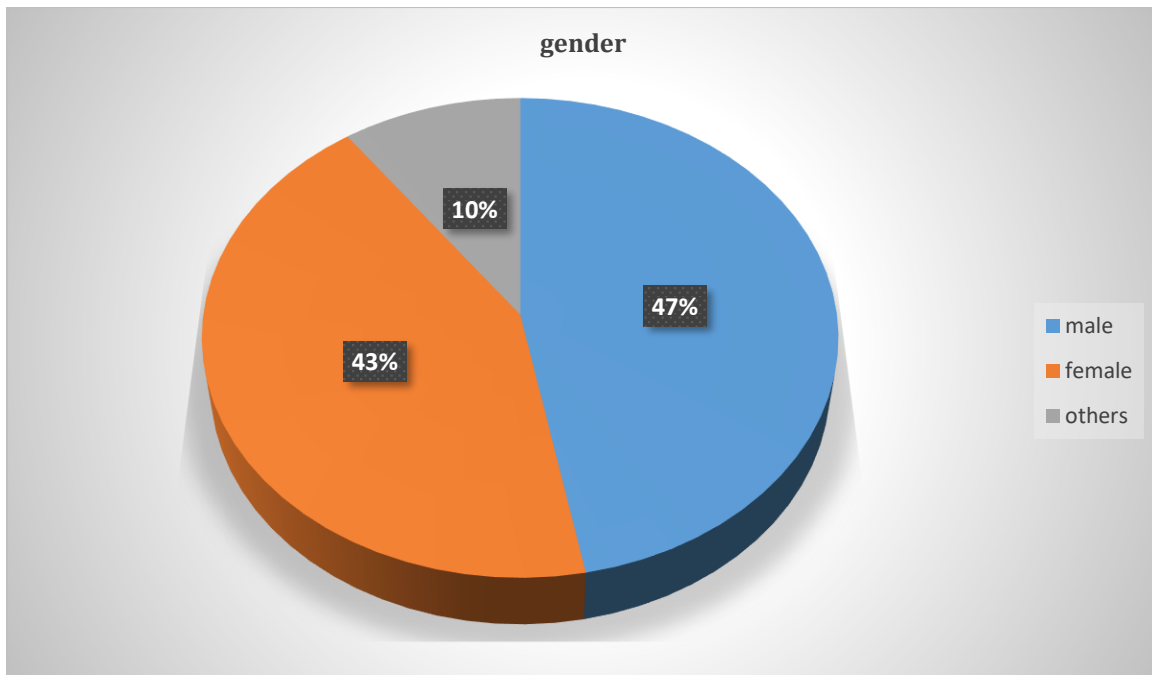
H1: Online banking is not safe

5. RESEARCH METHODOLOGY

The primary data has been collected from 100 respondents through Google form and that has been analysed using Pie chart and its interpretation. The secondary data has been collected from various websites and books.

6. DATA ANALYSIS

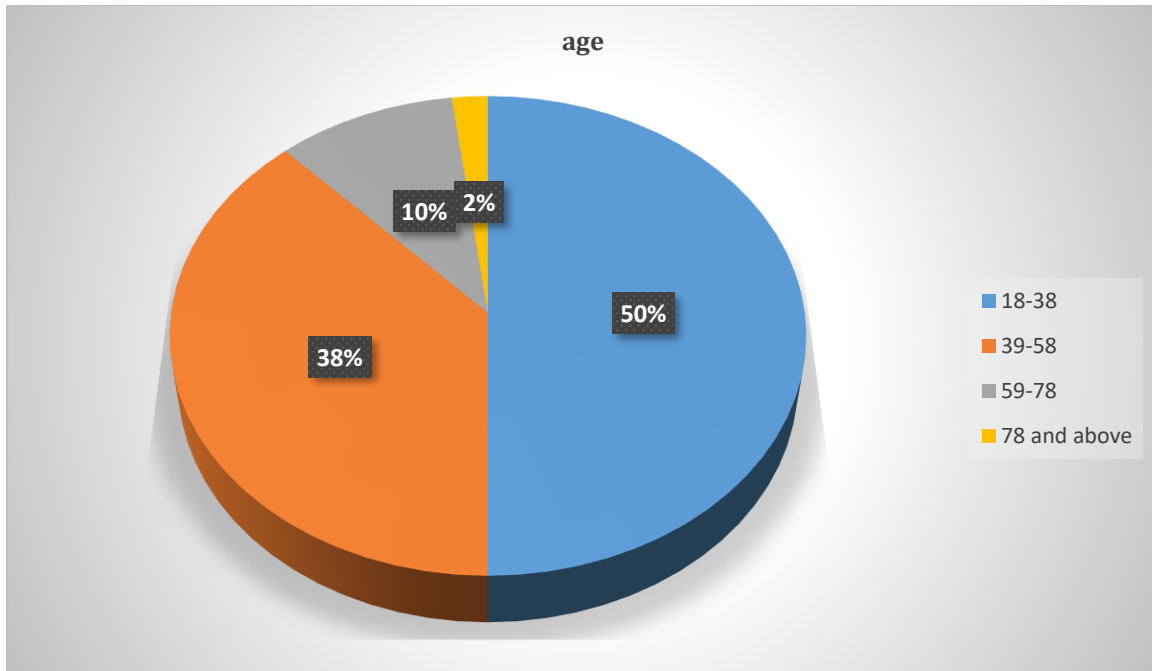
Gender



Interpretation

It shows that 47% of the males, 43% of the females and rest are involved in online transactions

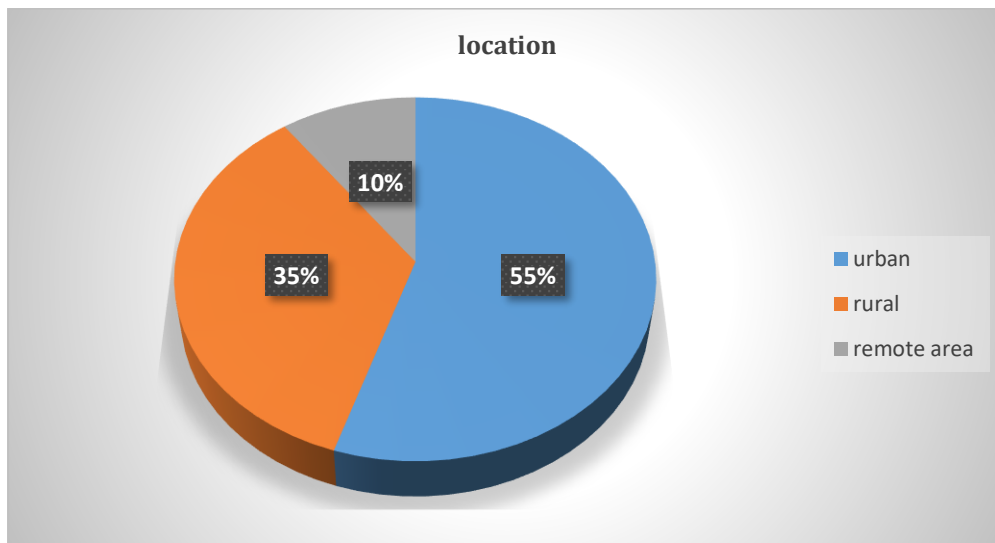
Age



Interpretation

It shows that most of the online transactions are done by the age group of 18-58

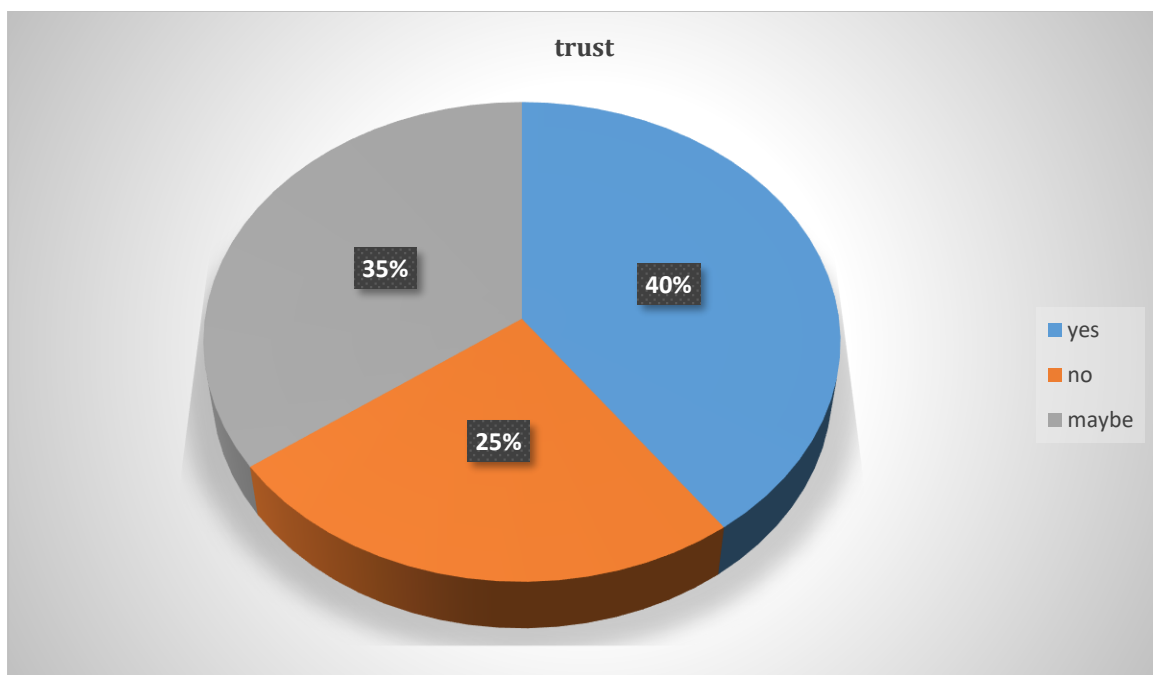
Location



Interpretation

It shows that 55% of the users live in urban areas, 35 % users live in rural areas and rest live in remote areas.

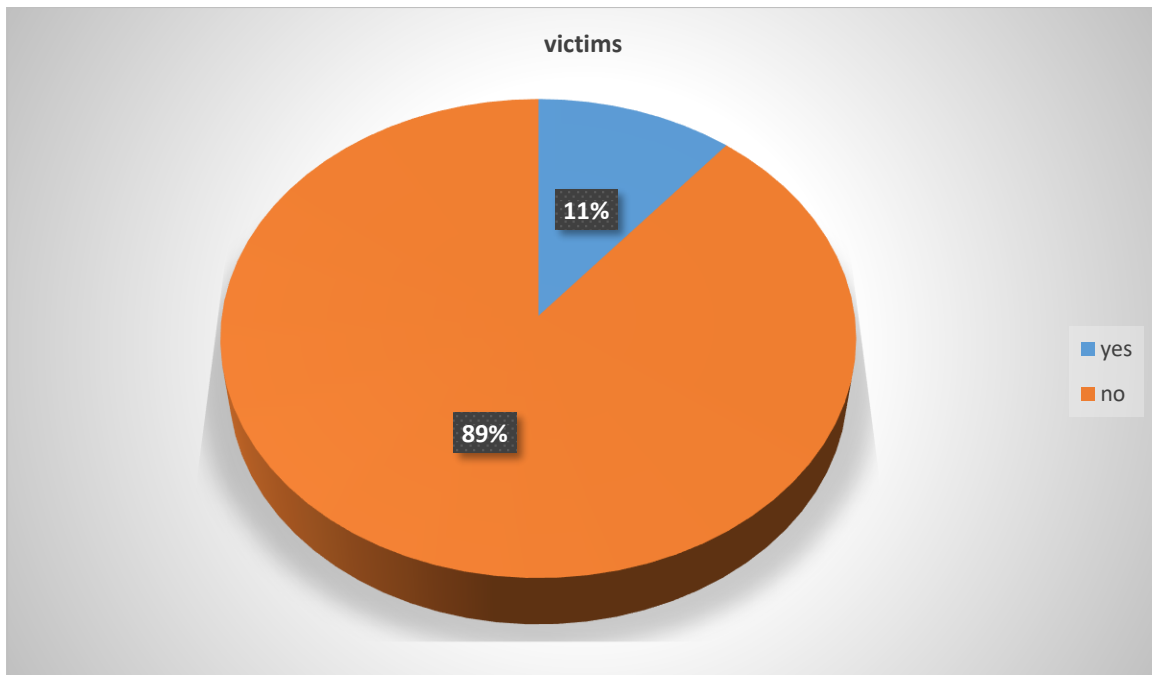
How safe online transactions are?



Interpretation

Only 40% users feel that online transactions are safe 25% users feel that it is not safe 35% users are not sure whether it is safe or not but still they do online transactions

Victims of cyber attacks



Interpretation

11% of users faced cyber attacks

Are online transactions safe?

Millions of users in India do several online transactions daily and the negligible behaviour the users can expose them to cyber-attacks and scams. Not following precautions like having a strong password, two factor authentication or a reliable anti-virus can help the scammers to take advantage of the same leading to fraudulent online transactions. Considering security as a factor of online transactions is quite a big concern. Only if high precautions are taken, online transactions are safe.

Therefore it is very important for the online banking users as well the providers to be very well aware about all the required precautions as cyber security to prevent unwanted cyber-attacks and scams. According to a study around 71% of the fraud online transactions are carried out using mobile browsers and applications.

Case study

A major data breach at State Bank of India exposes the bank information of loads of users in India in January 2019

Insights:

In 2019, SBI and its users faced a data breach. It is said that a server which was used to provide services to the users using SBI Quick was left unguarded by a password. This exposed the details of loads of users like recent monetary transactions, phone numbers

and bank account details. Although this was not a big threat to the users but this was enough for tricky minds to take advantage of and commit a scam.

Precautions while doing online transactions

1. Always use strong passwords. They must be a combination of alphabets, numbers and special characters
2. Change the set passwords regularly
3. Always go multifactor authentication that is one must have multiple layers of security
4. Never fall for phishing scams. Never open any unverified e-mail, link and message.
5. Never give your personal bank details to anyone asking for some verifications
6. Always go for authentic and reliable financial applications. Use the official applications of the banks.
7. Public wireless fidelities are quite vulnerable for cyber-attacks so be aware if you log in to your bank account on it. It is recommended not use public Wi-Fi when logging to your bank account.
8. Always have an eye on your bank account activities. Keep an update of your bank balance and transactions.
9. Keep an eye on your bank statements.
10. Make sure that you have an anti-virus installed as it will ensure the safety of your information.
11. Make sure you always log out after accessing bank account. This acts as another level of security.

7. CONCLUSION

Based on the results of the research it is concluded that online banking involves risk but can be safe if done with precautions.

8. LIMITATIONS

There are three major limitations in this study:

1. Lack of time

Due to limited time this study is not complete in full aspects

2. Sample size

The survey conducted does not give the results belonging to the whole population as the primary data has been collected considering 100 respondents

3. Lack of previous research studies

Due to lack of previous research on this topic there is lack of theoretical foundations

9. FUTURE SCOPE OF STUDY

1. To determine the types of cyber-attacks in India

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