FINANCIAL CYBER SECURITY OF AXIS BANK IN NEW EDUCATION SYSTEM

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Abstract

Cyber security education involves learning about the best practices and strategies for protecting against cyber attacks. This includes learning about the latest cyber threats and how to identify them, as well as how to implement effective security measures.

The banking system of India should not only be hassle free but it should be able to meet new challenges posed by the technology and any other external and internal factors. For the past three decades India's banking system has several outstanding achievements to its credit. The most striking is its extensive reach. It is no longer confined to only metropolitans or cosmopolitans in India. In fact, Indian banking system has reached event to the remote corners of the country.

Cyber security is the protection of information systems including software, hardware and information.

Primarily you need to be cyber secure to protect systems and data from unintended or unauthorized access, change or destruction.

Main objective of the study is to "Financial Cyber Security of axis bank. in New Education System" Some of the major objectives of the study include the determination of the following:

- *Students & consumer awareness about Financial Cyber Security provided by the axis bank in new education system.*
- *Students preference about various products and services.*
- *Customer's perception towards Online Banking and Modern Financial threats.*
- *Students & customer satisfaction with financial security provided by the axis bank.*
- *Draw out with conclusions and suggestion based on the analysis and the interpretation of data.*

Keywords: *Education system, Banking, Cyber Security, Finance, Consumer, Financial Cyber Security*

Introduction:

Cyber security in Education:

Cyber security education involves learning about the best practices and strategies for protecting against cyber attacks. This includes learning about the latest cyber threats and how to identify them, as well as how to implement effective security measures.

Banking in India:

Without a sound and effective banking system in India it cannot have a healthy economy. The banking system of India should not only be hassle free but it should be able to meet new challenges posed by the technology and any other external and internal factors. For the past three decades India's banking system has several outstanding achievements to its credit. The most

striking is its extensive reach. It is no longer confined to only metropolitans or cosmopolitans in India. In fact, Indian banking system has reached event to the remote corners of the country. This is one of the main reasons of India's growth process.

What is meant by cyber security?

Cyber security is the protection of information systems including software, hardware and information (data).

Primarily you need to be cyber secure to protect systems and data from unintended or unauthorized access, change or destruction. It is of increasing importance because of the reliance of computer systems in society and the amount of personal data that is being created, stored and shared in our ever-connected world.
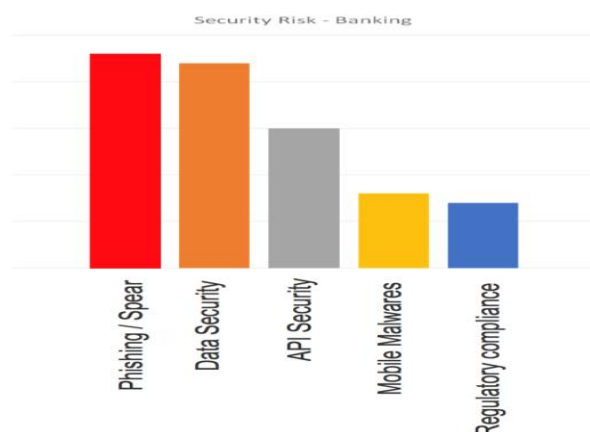
Living in this new connected world has been underpinned by the growth of "smart" devices, including phones, wearable tech, smart televisions, and even smart cars in the 'Internet of Things' era. This has led to a significant increase in the information that is shared over the Internet and private data networks, but also via Bluetooth, Wi-Fi and other wireless networks.

Cybercrime: The Growing Malaise

Recently all banks in India were sent a communication by the RBI to upgrade their security standards and implement a novel cyber security system, along the governing lines of the RBI. This mandate is routine and it is a norm for the Central banking world's governing body to introduce new and improved laws for regulatory compliance. While all of this may seem rudimentary on the surface, it gives one cause, to ponder and reflect on the underlying reasons for such a mandate. Is there a deeper malaise that affects the banking sector where banking safety norms and guidelines are concerned?

Company Name	What Happened
Reliance Jio	Unauthorised access into a part of database
Star	Unreleased episodes of Games of Thrones leaked
Union Bank	Hackers managed to steal Union Bank's access codes for the Society for Worldwide Interbank Financial Telecommunication (SWIFT).
Axis Bank	Unauthorized login by an unnamed, offshore hacker.
Zomato	17 million user records from its database were hacked.
Renault India	Hit by Ransomware Wannacry in global attack
IRCTC	Data theft from website
Yes Bank	Malware attacked some ATMs and POS machines
Hitachi Payment Systems	Malware caused breach of bank data
Bank of Maharashtra	central server hacked
Reckitt Benckiser India	Hit by global ransomware attack

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Top 5 Risks

Security Risk - Banking

Phishing / Spear | Data Security | API Security | Mobile Malwares | Regulatory compliance

Top Reasons

1. Internet Banking frauds (Phishing and Spear Phishing, Identity theft, Poorly designed application) — Primarily customer awareness
2. Mobile Banking Risk - financial malware, Mobile App risk
3. DDoS — Hactivism
4. APIs exposure
5. Skills and Awareness among employees and customers
6. Lack of monitoring and detection technology, processes and governance

Research Methodology:

Objectives of Study:

Banking and finance can be called as the nerves of any economic system as they accelerate the process of economic development through canalization of adequate finance. It is hard to anticipate development of efficient banking services in the country without strong cyber security.

Main objective of the study is to "Financial Cyber Security of axis bank." Some of the major objectives of the study include the determination of the following:

*   Students & consumer awareness about Financial Cyber Security provided by the axis bank in new education system.

*   An awareness program to students how to handle cyber security in Education System.

*   Students preference about various products and services.

*   Customer's perception towards Online Banking and Modern Financial threats.

*   Students & customer satisfaction with financial security provided by the axis bank.

*   Draw out with conclusions and suggestion based on the analysis and the interpretation of data.

Type of Research:

Research is one of the most important parts of any study and pertains to the collection of information and knowledge. Marketing research is defined as the systematic design, collection, analysis, and reporting of data and findings relevant to a specific marketing situation facing the company. My project has been developed on has basis of both exploratory and descriptive research. The research process depends upon developing the most efficient plan forgathering the needed information. Designing a research plan calls for decisions on the data sources, research approaches, research instruments, sampling plan, and contact methods.

Sample Size and Method of Selecting sample:

I chose a sample size of 40 respondents consisting of based on judgment sampling all respondents were the customers of various banks. The method was simple random sampling.

Data Source:

For this project both primary and secondary data were valuable sources of information.

Secondary data:

Secondary data provides a starting point for any research and offers valuable sources of already existing

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information. Secondary data are the easiest together and the cost of collecting this data is also very low. For my research paper it was collected through the help of various directories of various associations, magazines, newspapers, websites etc. The directories helped me in short listing people, for my target people.

Primary data:

Primary data are data freshly gathered for a specific purpose. For my research paper the primary data was collected by means of multiple visits to Axis Bank, Sun City branch along with the survey though questionnaires.

Contact methods:

The primary contact method was a one on one discussion with Ms. Keerthi Shukla, Financial analyst, Axis Bank in trying to understand, what does Axis Bank offer, and How is the level of financial security of Axis Bank.

Once the respondents for the questionnaire were decided, then I adapted two ways of contacting them.

1. **Personal interview**: - this method was the most appropriate way of survey, because by personal interview I came to know about their feeling for Axis Bank.

2. **Telephone: -** This method was also used by me once or twice, keeping in mind the busy schedule of a few respondents.

Scope of Study:

Axis Bank is one of the most famous banks in India. The relevant services that need financial cyber security offered by Axis Bank include & An awareness program to students cyber security in Education System.

Internet Banking: Security controls like multi factor authentication, creation of strong passwords, adaptive authentication, image authentication, etc. can be considered.

Mobile Banking: It should be ensured that mobile applications are up to date and should be tested. Latest hardening standards could be implemented.

Wallet Transactions: Awareness material on Phishing, Malware attacks, vishing and social engineering, Password security etc. should be incorporated.

ATM Security: Biometrics like eye-retina, voice scan or fingerprint scan should be introduced by Banks.

UPI (Unified Payment Interface) : Banks and PSPs need to think through their security strategies, governance models and predictive controls to build a secure UPI environment that ensures a seamless user experience and at the same time balances security risks.

Limitations of Study:

- The study was based on comparative analysis financial cyber security of Axis bank & An awareness program to students how to handle cyber security in Education System.

- The study was based on a very modest sample size hence cannot be called as a representation of the views and opinion of the majority.

- In a rapidly changing industry, analysis on one day or in one segment can change very quickly. The environmental changes are vital to be considered in order to assimilate the findings.

- The conclusion arrived at are based on a very less experience of researcher in this field.

Facts & Findings:

1. **Do you have Internet banking setup on your account?**
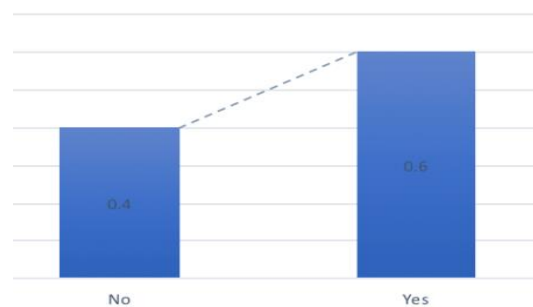
Interpretation: 60% of the respondents have internet banking setup on their banking accounts, and the adaptability of internet/online banking has increased remarkably from past 2-3 years.

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2. Do you use mobile banking for Banking/Financial transactions?
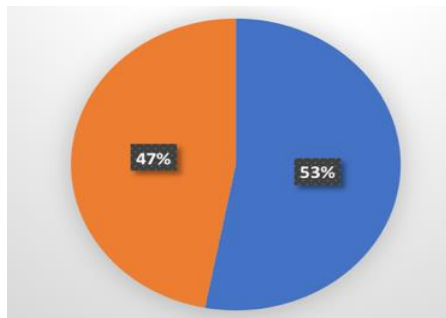
Interpretation:

47 % of the respondents use their mobile phones to perform banking transaction either by using the web browsers to access online banking (or) using the apps that are provided by the respective banks

3. **How often do you go to your bank to perform financial transactions?**

Interpretation:

It is observed that most of the respondents rarely visit their bank to perform financial transactions. Visiting the bank branches to deposit & withdraw money along with other services like DD, cheque, etc. have been traditional methods of banking and finance in India
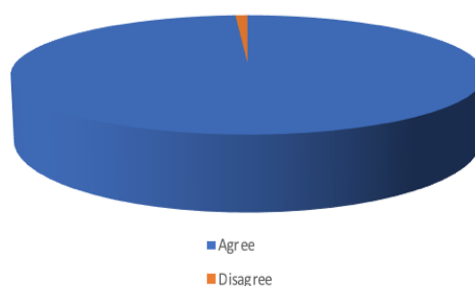
4. Is your mobile phone registered with bank to receive OTP/SMS?

Interpretation:

87% of the respondents receive timely alerts about all the transactions
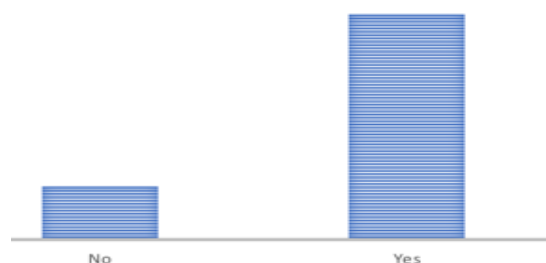
5. **Cyber Security is important for all the online/mobile transactions**

Interpretation:

Surprisingly, 99% of the respondents have agreed that cyber security is important for a Bank/Financial institution.
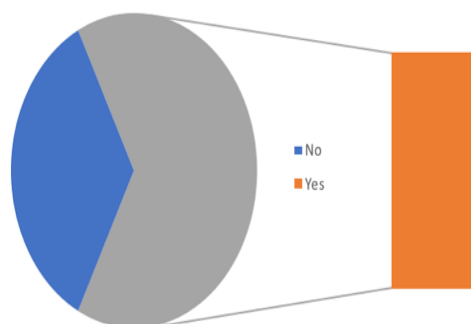
6. **Do you use credit card for web/online purchases?**

Interpretation:

Majority of the respondents are using cashless methods for web/online purchase.

7. **Have you ever received phone call asking for credit card/Bank account details?**

Interpretation: 65% of the respondents have received phone calls.

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Swot Analysis:

Strengths:

- Axis bank has been given the rating as one of top three positions in terms of
- fastest growth in private sector banks
- Financial express has given number two position and BT-KPMG has rated
- AXIS bank as the best bank with some 26 parameters
- The bank has a network of 1,787 domestic branches and 10,363 ATMs
- The banks financial positions grow at a rate of 20% every year which is a major positive sign for any bank.
- With increasing risks of cyber threats, banks are facing an unprecedented challenge of data breaches and are therefore strengthening their cyber security postures. The following are the noticeable trends in banking industry from cyber security point of view:

Weaknesses:

- Block chain is a technology that was initially developed for Bitcoin, the Cryptocurrency. Block chain could reduce banks infrastructure costs by US$ 15-20 billion per annum by 2022. Block chain have the potential to transform how the business and the government work in vast variety of contexts.
- Banks will continue to leverage digital technologies to enhance customer experience.
- Ongoing threats related to IoT devices will force banks to tighten security layers, including patchable firmware/software, secured authentication, and controlled privilege access. Today, most IoT devices are considered throw away devices and security patches are not issued. But, new regulations will be driven by large scale attacks using IoT to amplify the attack.

Opportunities:

- With the increase in the development of technologies the banking industry is evolving at an extraordinary rate. Unmanned aerial systems, the Internet of Things, Near Field of Communication (NFCs), and near able devices are some of the technological advancements that banks will need to consider in the near future.
- Few of the top upcoming priorities for banks could be cloud based platforms, robotic process automation and cognitive technologies. Automation will drive new efficiencies across the security lifecycle but require the creation of control mechanisms and strong governance.
  - **Strict compliance regulations**: Managing regulatory compliances has become enormously challenging for the banks. Over the past few years the volume of regulations has increased dramatically. Along with the larger banks, smaller ones too are required to fulfill the regulatory obligations
  - **The struggle to secure customer data**: There are number of ways in which violation of privacy can take place in banking sector like stolen or loss card data, unauthorized sharing of data with third parties and loss of client's personal data due to improper security measures
  - **Third party risk:** Banks need to conduct due diligence on third parties they are associated with. As per Payments card industry data security standard, third parties need to report any critical issues associated the card data environment to the bank.
  - **Evolving cyber threat landscape**: The development in technologies is leading to the latest cyber threats like next generation ransomwares, web attacks etc.
  - **Transaction frauds**: Fraud detection technologies should be in place with proper consideration of risks based on the business factors.
  - **Secure SDLC:** Banks need to incorporate SDLC

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security for banking products and applications.

Threats:

▪ Despite all the scaremongering by popular media, the Internet's dark side, hyped as the Deep Web or the Dark Web, isn't actually all that big. It is overestimated, often to silly proportions, by folks not really familiar with the intended connotation of 'dark web', clubbing everything un indexed and password protected with all that's concerning.

Conclusion:

▪ The study mainly was on the customer orientation that how they think, what they want from their banks and how they take decision going to any bank.

▪ Axis Bank, like many other large financial institutions, often receives security threats from across the globe. The bank has strict security protocols and procedures in place and all its online properties are monitored round the clock by its in-house team of security experts

▪ In this study I found that the bond of Axis Bank with its customers is very strong, because Axis Bank mainly focuses on retaining their customers.

▪ This study finds that however Axis Bank is not the leading private sector bank but its vast range of products and availability of options make it one of the better banks in India.

▪ The bank should focus on the semi urban and rural market because these markets are very good opportunity for someone like Axis Bank which is in growing face. Without expanding in these markets Axis Bank cannot be a leading bank so they should focus on this market.

Recommendation & Suggestions:

▪ Axis Bank must conduct regular drills, awareness programs and simulation exercises to keep their infrastructure secured.

▪ Mostly service class persons prefer the axis bank in the comparison of business and students and other class persons thus it needs to promote its product and services that are offered mainly for the business class people and students. Because these two class forms major users of the banking services.

▪ Axis bank should implement the cyber security framework at all locations:

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