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Fortifying Financial Frontiers: Safeguarding Online Banking in Chhindwara City

[1]Utkarsha Dhanraj Nitnaware, [2]Dr.H.M.Jha "Bidyarthi"

[1] MBA Final Year Student, Department of Business Administration and Research, Shri Sant Gajanan Maharaj Collage of Engineering, Shegaon, India

[2]Professor, Department of Business Administration and Research, Shri Sant Gajanan Maharaj Collage of Engineering, Shegaon, India

ABSTRACT: Banking online has spread like anything besides several other transactions also taking place through digital means and therefore security concerns in doing so are also escalating. The present study attempts to ascertain the status of online banking and other financial transactions in a city of central India along with the security measures accompanying it that fortify financial frontiers of the banking customers and general public transacting digitally in this city. The finding of the study establishes a strong positive relationship between consumers and security for online banking and transactions. In some cases the consumers are not satisfied with security for online banking and transactions because they find it much more complex, as they are unaware of technology and have insufficient knowledge about the payment transaction in mobile phones, especially illiterate people in rural areas. Finally this research recommends the measures to be initiated both by banks as well as service providers for online transactions to strengthen this financial frontier in the interest of the banking customers and general public for their ease, safety, security and check against digital frauds. There is a need for introducing better technology, educating people, following the rules, and working together by every stakeholder connected to online banking and other businesses.

KEYWORDS: online banking, transaction security, Chhindwara City, identity theft, phishing attacks, data breaches

I. INTRODUCTION

Securing online banking and financial transactions in Chhindwara City in particular and else where in general is of super importance nowadays because of all the digital stuff that we are using. As technology gets fancier, so do the bad guys trying to steal our money online. That's why we need really strong security measures to keep our financial info safe. Chhindwara City, in Madhya Pradesh, India, is getting more and more digital, so we've got to be extra careful about protecting our online banking. Online banking is awesome—it lets us manage our money without leaving home. But there are risks, like hackers trying to trick us into giving them our info or getting into our accounts without permission. In Chhindwara, where digital stuff is getting more popular, keeping our online transactions safe is a big deal.

The present study attempts to look into how to make online banking and transactions safer in. It checks out what the security is like now, what kinds of risks people face, and how one can make things better. The paper also addresses on issues like technology, tips, and strategies that banks, businesses, and regular folks can use to stay safe from cyber threats. Life is becoming more digital, which is cool for growth, but it also means more chances for cyber problems. With more smartphones, internet use, and digital payments, it's easier to do financial stuff online. But one has got to be careful to stop fraud and keep one's personal information safe. To fix this, it needs to understand the challenges facing online banking such as how good the internet is, how much people know about online risks, what rules are in place, and how banks are protecting us etc.

Looking at how secure online banking is in Chhindwara now, we'll see what's good and what needs work. Banks probably use fancy stuff like encryption and asking for multiple ways to prove it's you. But because cyber threats are always changing it needs continuous updating of security measures.

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II. LITERATURE REVIEW

1. **Singh & Mishra, 2021,** Some banks in Chhindwara City have started implementing biometric authentication methods such as fingerprint or iris scanning to enhance security and ensure the authenticity of users.
2. **Verma & Kumar, 2018,** SSL certificates are utilized by banks to establish secure connections between web servers and browsers, encrypting data during transmission and providing assurance to users about the authenticity of the website**.**
3. **Joshi & Sharma, 2020,** Tokenization involves replacing sensitive data such as credit card numbers with unique tokens, reducing the risk of data theft during online transactions **.**
4. **Chauhan et al., 2019,** Banks employ real-time monitoring systems to track transactions and detect any unusual activities or deviations from normal behaviour, enabling prompt response to potential security threats**.**
5. **Gupta & Singh, 2022,** Some banks in Chhindwara City opt for cyber insurance policies to mitigate financial losses resulting from cyber attacks or data breaches, providing an additional layer of protection against unforeseen risks**.**
6. **Gupta & Singh, 2022,** With the increasing use of smartphones for banking activities, banks in Chhindwara City focus on developing secure mobile banking applications with features such as biometric authentication and encryption to safeguard customer data .
7. **Yadav & Tiwari, 2019,** Two-factor authorization methods, such as sending one-time passwords (OTPs) via SMS or email, are widely employed by banks to add an extra layer of security during login or transaction authentication processes**.**
8. **Singh et al., 2020,** Banks provide dedicated customer support services to assist users in case of security-related concerns or incidents, offering guidance on secure practices and assisting with account recovery processes**.**
9. **Chaturvedi & Saxena, 2021,** Banks ensure secure communication channels for interacting with customers, employing encrypted emails or secure messaging platforms to exchange sensitive information without compromising security**.**
10. **Mishra & Gupta, 2019,** Banks develop comprehensive incident response plans to effectively handle security incidents or data breaches, outlining procedures for incident detection, containment, investigation, and recovery**.**

III. RESEARCH METHODOLOGY

Objectives:

1. To study awareness and usage level of respondents towards security for online banking and transaction.
2. To identify factors of acceptance of security for online banking and transaction.
3. To identify security for online banking and transaction impact on customer perception.
4. To find the customer expectation towards security for online banking and transaction services.
5. To determine the satisfaction level towards security for online banking and transaction in Chhindwara city.

DATA COLLECTION METHOD:

1**. Primary Method of Data Collection:**

• Questionnaire method

2**. Secondary Method of Data Collection:**

• Corporate website

• Internet/Books/Journals and other written data about company and Topics

✓**Research type:** Descriptive type of research

✓**Sample size**:- 100

SAMPLINGTECHINQUES:

Choosing an appropriate sample strategy is essential while researching security for online banking and other transactions. Ensuring representation across demographics or usage patterns is ensured by structured and random sampling. Quick, but potentially biased, convenience sampling is different from intended, and cluster sampling, which effectively target specific groups. These methods guarantee as sophisticated comprehension of security for online banking and transactions.

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Table Showing Frequency of Sample Respondents alone Demographic Variables

Demographic Variables		Frequency	Percentage
Age	18 -35	61	58.1
	36–45	27	25.7
	46–55	12	11.4
	55– 65 +	5	4.8
	Total	**33**	**105**
Gender	Male	55	52.4
	Female	50	47.6
	Total	**33**	**105.00**
Profession/ Occupation	Student	41	39
	Self Employee	31	29.5
	Government Employee	10	9.5
	Businessmen	12	11.4
	Private Employee	11	10.5
	Total	**33**	**105.00**

The data provided in the above table outlines the demographic distribution of a sample population based on age, gender, and profession/occupation. In terms of age, the majority of respondents are 18-30 years old, constituting 58.1% of the sample, followed by those in the 36-45 age range (25.7%), 46-55 age range (11.4%), and individuals aged 55 – 65+ (4.8%). The gender distribution shows a higher representation of males (52.4%) compared to females (47.6%). Regarding profession/occupation, the majority has Student profession/occupation, accounting for 39%, while 29.5% are Self Employed. Additionally, 9.5% of respondents are Government Employees, 11.4% are Businessmen and 10.5% fall into the Private employee category. This data provides insights into the composition of the surveyed group, revealing patterns in age, gender, and Profession/Occupation distribution.

DATA INTERPRETATION AND ANALYSIS:

1. Ease in use of Security for Online Banking and Financial Transactions:

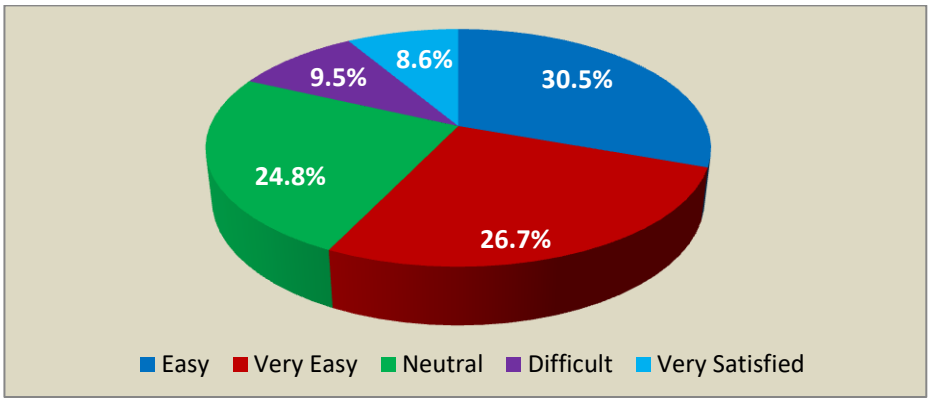

Table showing responses against ease in use of Security for Online Banking and Financial Transactions

Ease in use of Security for Online Banking and Financial Transactions	%age of respondents
Easy	30.5%
Very Easy	26.7%
Neutral	24.8%
Difficult	9.5%
Very Satisfied	8.6%

From the above chart and table it is observed that 30.5% of the respondents state that about it is easy to use security for online banking and transactions, 26.7% of the respondents find it very easy, 24.8% respondents are neutral, 9.5% of the

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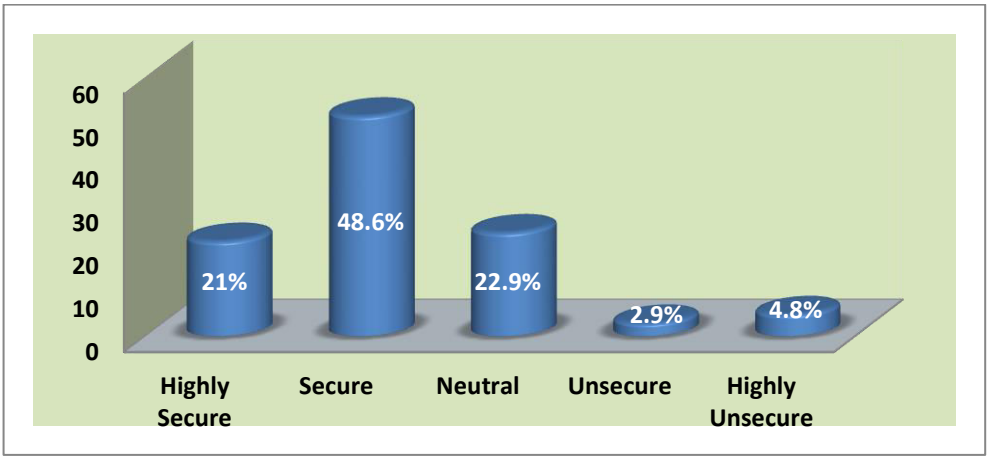
respondents experience difficult in its use and the remaining only 8.6% respondents are very satisfied with the ease to use security for online banking and financial transactions**.**

2. Perception about Security and Safety facilities for Online Banking and Transaction Services:

Graph and Table showing **Perception about Security and Safety facilities**

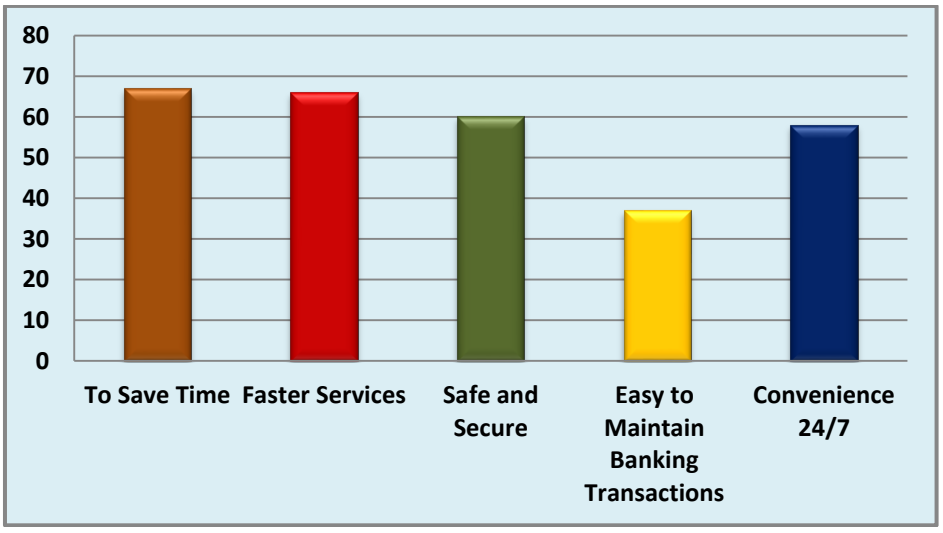


Perception about Security and Safety facilities	%age of respondents
Highly Secure	21%
Secure	48.6%
Neutral	22.9%
Unsecure	2.9%
Highly Unsecure	4.8%

The above table and chart indicates that 21% of the respondents feel highly secure security and safety services, 48.6% of the respondents feel just secured, 22.9% respondents are neutral, 2.9% of the respondents feel unsecured and the remaining 4.8% respondents feel highly unsecured about the security and safety measures**.**

3. Reasonsunderlying use of Security for Online Banking and Transactions Services by respondents:

Table and chart showing reasons underlying use of security



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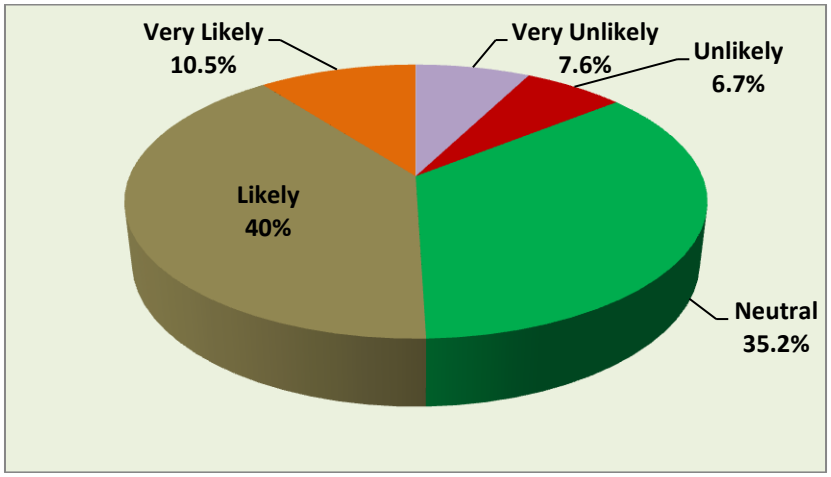
Reasons underlying use of security	%age of respondents
To Save Time	63.8%
Faster Services	62.9%
Safe and Secure	57.1%
Easy to Maintain Banking Transactions	35.2%
Convenience 24/7	55.2%
To Create Online FD/RD	7.6%

It can be seen in the above table and the corresponding chart that 63.8% of the respondents say to save time is an important reason behind use of online banking and other transactions services, 62.9% of the respondents for faster services, 57.1% respondents are in favour of safe and secured transactions, 35.2% of the respondents find it easy to maintain banking transactions, 55.2% respondents feel convenience 24/7, 7.6% respondents for creating online FD/RD as their most important reason for using online facilities**.**

4. Alternative users of Security for Online Banking and Transaction Services:

Table and chart showing a**lternative users of security for online banking and financial transaction services**



Alternative users of Security for Online Banking and Transaction Services	%age of respondents
Very Unlikely	7.6%
Unlikely	6.7%
Neutral	35.2%
Likely	40%
Very Likely	10.5%

From the above we observe that 7.6% of the respondents are very unlikely to suggest others to use Security for Online Banking and Transaction Services, 6.7% of the respondents are just unlikely to so suggest, 35.2% respondents are neutral, 40% of the respondents are likely to suggest and the remaining10.5% respondents are very likely to suggest others to use Security for Online Banking and Transaction Services**.**

FINDINGS:

1. The majority of individuals aged 18-35 utilize securityfor online banking and financial transaction services, highlighting their importance within this age group.
2. There's a lower participation of women in security for online banking and financial transaction services, often due to their unfamiliarity with banking procedures and the tendency for financial decision-making to remain within male-dominated spheres.
3. Online banking is mainly used by student individuals, with a significant portion being self employed.

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4. Contrary to previous beliefs, the initiation of security for online banking and financial transaction services isn't necessarily linked to income levels, as there are no specific balance requirements for account maintenance.
5. Many customers express satisfaction with Bank of India's security for online banking and financial transaction services, citing their robust features and convenience.
6. Saving time and having universal accessibility are primary reasons why individuals opt for security for online banking and financial transaction services.
7. Internet banking is the most commonly used, followed by online services, mobile banking, fund transfers, and bill payments.
8. The preference for internet banking suggests a perceived insecurity with other forms of online banking services.
9. Server downtime is a significant issue affecting security for online banking and financial transaction services.
10. Customers prefer conducting transactions through security for online banking and financial transaction services channels whenever possible.
11. Personal computers and laptops are the primary devices used for accessing security for online banking and financial transaction services.
12. Bachelor Degree levels of education are associated with increased usage of security for online banking and financial transaction services.
13. The popularity of online banking services, particularly internet banking, arises from their ability to reduce transaction costs, save time, provide user-friendly interfaces, and allow access from any location, all of which positively influence their adoption.

RECOMMENDATIONS:

1. Encourage individuals aged 55 to 65+ to embrace Security for Online Banking and Financial Transactions through targeted incentives and promotional campaigns.
2. Implement fresh policies and incentives to encourage a higher volume of transactions among security for online banking users.
3. Enhance the accessibility of online banking services, both in terms of technology and physical availability, to ensure convenience for all customers.
4. Introduce specific measures to support women customers in adopting and utilizing online banking services effectively.
5. Expand the range of amenities offered by the bank, such as training programs and awareness initiatives, to cater to the diverse needs of all customer segments.
6. Establish collaborations with other financial institutions to streamline online bill payments, premium collections, and other financial transactions.
7. Simplify the user experience for those unfamiliar with online banking by implementing intuitive access methods.
8. Improve the quality of online banking services by refining website design, optimizing the bank's homepage, and maintaining reliable server performance.

IV. CONCLUSIONS

In Chhindwara City, many respondents said that in today's digital world, where banking information is readily available online, and awareness about the bank's security measures is crucial. Since people in rural area and senior citizens lack the awareness due to which these people are more targeted. Understanding how the bank protects the data and the steps one can take to bolster online security empower speoplein becoming proactive participants in safeguarding their finances. They need to know how to prevent such frauds.

Cybersecurity, the umbrella term for practices that defend against digital threats, plays a vital role in bank security .People should check some basic authentication doing payment and they should know the policy of banks to reduce the risk. Multi-factor authentication (MFA) is a significant advancement in this area. MFA adds an extra layer of security by requiring not just the password, but also a unique code sent to the customers' phone or another designated device. This significantly reduces the risk of unauthorized access, even if a hacker steals the password.

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Beyond the bank's measures, customers' vigilance is essential. People need to be cautious of phishing attempts – emails or messages disguised as legitimate sources that try to steal their login information. It advised not to click on suspicious links or attachments. Additionally, using strong, unique passwords for each online account and enabling two-factor authentication whenever possible further strengthens the online security.

By working together, banks and their customers can create a robust mechanism against digital thieves. With awareness, knowledge of security measures, and a commitment to safe practices, people can navigate the online world with confidence.

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