

A Study on the Customer Perception Towards Digital Security in the Banking Sector in Kerala

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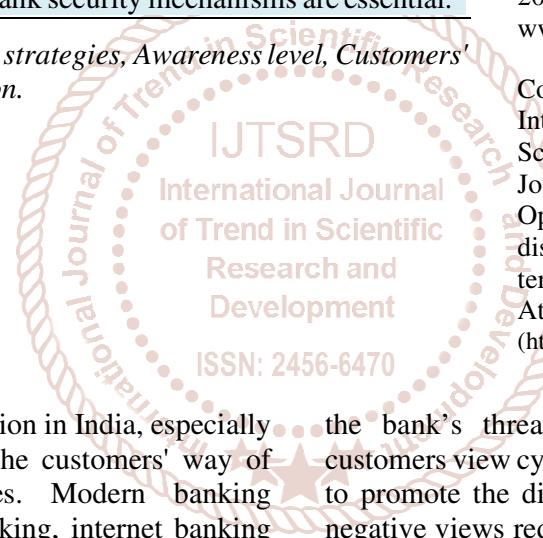
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ABSTRACT

For ensuring safe and reliable online banking transactions, adequate cybersecurity procedures and higher customer awareness are required. This study examines the effect of cybersecurity perception and measures adopted by the bank on customers' trust and digital banking acceptance. A structured questionnaire was used to collect the primary data from the 385 active customers of digital banking services or transactions. Data analysis was done by using SPSS software. A proper knowledge of cybersecurity strategies can improve the customers' trust. The study emphasizes that in order to boost the customers' trust and digital banking service usage, customer education and strengthening bank security mechanisms are essential.

KEYWORDS: *Cyber security strategies, Awareness level, Customers' trust, Digital banking adoption.*



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I. INTRODUCTION

The banking sector digitalization in India, especially in Kerala, has transformed the customers' way of accessing financial services. Modern banking facilities such as mobile banking, internet banking applications and UPI digital platforms have made financial transactions more easier, convenient and accessible. However, the growing usage of technology has increased the various forms of cybercrimes such as phishing, fraudulent transactions and hacking, etc(Bhardwaj, 2023).Because of that reason, a proper understanding of customer perception towards cybercrime and cyber security measures are essential for bankers, policy makers and researchers. Reserve Bank of India have advised that banks must create data security measures and cyber threat regulations to control emerging threats in online banking(RBI, n.d.).

Kerala, being a state of high digital payment system adoption and also where digital financial literacy is growing steadily, more attention on cyber risk to ensure customer trust and usage tendency. Actually, awareness level, Proper security measures and trust in

the bank's threat control measures create how customers view cyber risks. Positive perception leads to promote the digital adoption of technology and negative views reduced the usage of digital banking services(*Special Drive to Help Online Fraud Victims | Thiruvananthapuram News - Times of India*, 2025).

A proper understanding of cybersecurity issues are essential for strengthening Kerala's digital banking sector. Trust, perceived security and level of awareness are significantly impact the digital banking services and behavioral intentions regarding cyber risks.

II. LITERATURE REVIEW

2a: The effect of customers' awareness level and cybersecurity strategies on customers' trust

Customers' trust in online banking is significantly influenced by their cyber threat awareness, like phishing, Malware etc. Increased cybersecurity knowledge significantly boosts customer trust and online banking acceptance(Gopalan, 2005).It is found that cyber security awareness and understanding have

a positive effect on intention to use E-banking services(Afzal et al., 2024).Meanwhile, banks use more robust security measures like safeguards, encryption, multi-factor authentication and regular customer education(Kumar et al., 2023).

2b: The effect of customers' trust on digital banking service adoption

Customers' trust is essential for the acceptance of digital banking service, acting as a vital mediator that decreases the perceived risk and enhances online financial transaction engagement(Kumar et al., 2023).It is indicates that customers' trust, especially institutional confidence in the bank, moderated the perceived risk effect on behavioral intention and have a positive impact on mobile banking adoption (Apau & Lallie, n.d.).Infact, various studies shows that trust in digital services is directly boosts by the perceived

security strategies like encryption and authentication (Dias et al., 2025).

III. RESEARCH OBJECTIVES

- To assess the customers' awareness level and cybersecurity perception in the banking sector.
- To analyze how the cybersecurity strategy taken by the bank influences customers' trust.
- To examine how customers' trust impacts their digital banking service adoption.

IV. RESEARCH HYPOTHESES

H1: Customers' awareness level and cybersecurity strategies have a significant impact on customers' trust in banks.

H2: Customers' trust has a positive impact on digital banking service adoption.

V. RESEARCH MODEL



VI. STATEMENT OF THE PROBLEMS

In Kerala, digital banking is expanding rapidly, but customers are more worried about cyber threats like phishing, identity theft and online fraud. It is the fact that banks have put up several security measures, many consumers are still worried about the security of online transactions. Their digital banking service adoption influenced their awareness level and trust in the security protocol measures. However, little study examines how customers cyber cybersecurity perception creates customer trust.

VII. RESEARCH METHODOLOGY

The study used a descriptive and analytical research approach to investigate how customers' trust and digital banking service adoption are influenced by their cybersecurity perception and measures. The study focused on banking customers who are active users of digital banking services. A structured questionnaire consisting of Likert scale variables like cybersecurity perception, cybersecurity measures by banks, customers' trust and digital banking service adoption is used to collect the primary data. A sample of 385 respondents is selected using convenient sampling methods. Descriptive analysis, multiple regression analysis, and ranking analysis are used to analyze the data.

VIII. ANALYSIS AND INTERPRETATION

Demographic Analysis.

Key findings

- Most of the respondents belonged to the 21-30age group shows that young adults are the major users of digital banking services.
- Most of the respondents have a bachelor's degree or PG, which shows that higher education leads to more digital banking adoption.
- Middle-income groups are mostly using digital banking services, which shows that online banking is widely used by the financially active customers in Kerala.

Table 1 Outline of Descriptive Statistics

Variable	Mean	Std. Dev.
Cyber Security Awareness	3.84	0.67
Perceived cybersecurity measures	3.79	0.63
Customer Trust	3.92	0.71
Digital banking adoption	4.09	0.65

It shows that customers have a good cybersecurity awareness and they feel that banks provide strong security measures. There is a high trust in digital banking adoption. The highest mean of digital banking adoption shows that customers are comfortable with online banking transactions.

Regression Analysis

Regression analysis is done to determine the effect of customers' awareness level and cybersecurity strategies on customers' trust.

Table 2

	B Coefficients	Std Error	t value	Signi.
Customer Awareness Level	0.36	0.41	6.24	0.00
Cybersecurity strategies	0.32	0.38	5.73	0.00

Customers' awareness level has a significant impact on customer trust. This indicates that as customers are more aware of cybersecurity measures, which leads to the customers' trust in digital banking. A proper understanding of cybersecurity strategies enhances the customer's trust.

Correlation Analysis

Correlation analysis is done to determine the effect of customers' trust on digital banking adoption.

Table 3

	Customers Trust	Digital banking adoption
Customers Trust	1.00	0.754
Digital banking adoption	0.754	1.00
Sig(2-tailed)	-	.000

It shows that there is a strong positive correlation between customers trust and digital banking adoption ($r=0.754$, $p<0.000$).ie, a higher level of customers' trust creates a greater adoption of digital banking.

IX. SUGGESTIONS

Banks can improve their client knowledge by providing proper guidance on digital banking practices, prevention of fraud and ensure password security. Workshops on cybersecurity can be conducted to increase digital literacy. By strong encryption and ensuring prompt fraud-response procedures, bank must strengthen their cybersecurity measures. Prompt communication about security measures and resolution of customer complaints builds more customer trust. Bank must simplify the digital banking websites to increase customer engagement. Cybersecurity protection can be ensured through government and cybersecurity organizations by using stronger legal policies.

X. CONCLUSION

Customers' awareness and effective cybersecurity measures are required for creating confidence in digital banking adoption. Customers who are aware of online safety feel more comfortable in using digital banking platforms. The study shows that customer trust plays a significant role in influencing user intention towards digital banking acceptance. Banks and the government create Customers' awareness programmes and effective communication is essential for engaging customers in digital banking platforms.

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