



## CUSTOMER TRUST IN ONLINE BANKING APPS

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### ABSTRACT

The rapid expansion of mobile and internet banking has transformed the way consumers interact with financial services, offering unprecedented convenience and accessibility. However, the shift from traditional in-person banking to digital platforms has introduced new challenges, particularly regarding trust, security, and user confidence. This study investigates the factors influencing consumer trust and adoption of mobile banking applications, emphasizing the roles of perceived security, privacy, system quality, and user experience. Using a quantitative survey approach, data were collected from users of mobile banking services and analyzed to understand the relationship between trust and continued usage. Findings indicate that trust is a critical determinant for sustained engagement, while security measures, ease of use, and transparency significantly influence user perceptions. The study provides valuable insights for banks and financial institutions aiming to enhance consumer confidence, optimize digital service delivery, and ensure long-term adoption of mobile banking technologies.

**KEYWORDS:** Mobile Banking Apps, Trust, Self-efficacy, Multiple Mediation, Bootstrap

### INTRODUCTION

In recent years, mobile and internet banking have emerged as central channels for delivering financial services, driven by technological advancements and widespread smartphone adoption. Globally, over six billion smartphone users have accelerated the demand for online financial transactions, prompting banks to rapidly adapt and innovate their service delivery models. While these platforms provide convenience, accessibility, and real-time transaction capabilities, they also pose risks such as data breaches, privacy concerns, and perceived insecurity, which can undermine consumer trust.

Trust plays a pivotal role in determining the success and sustainability of digital banking. Users must feel confident in the security of their financial information and the reliability of the banking platform to engage continuously with mobile services. Previous research highlights that factors such as perceived security, system quality, usability, and transparency significantly influence trust and adoption behavior. Additionally, demographic variables like age, experience, and education can moderate these effects, affecting users' behavioral intentions and actual usage patterns.

Understanding these dynamics is essential for banks seeking to retain customers and foster long-term engagement in a competitive and technology-driven market. This study explores the critical elements shaping consumer trust in mobile banking and examines how these factors affect adoption, continued use, and user satisfaction. By identifying and analyzing these determinants, the research aims to provide actionable insights for financial institutions to enhance trust, security, and service quality in digital banking environments.

### REVIEW OF LITERATURE

Today, over 6.3 billion smartphone users have been reported worldwide (Statista, 2021), with a projected growth of almost hundreds of millions more per year. With the increased utilisation and development of mobile communication technology (Ahmad et al., 2020), wireless communication is seeing similarly rapid growth in its speed and reliability (Painuly et al., 2020; Srivastava and Fernandes, 2022).



Johan Ariff Jafri Shifa Mohd Nor a , Syajarul Imna Mohd Amin a , a b a , Aisyah Abdul Rahman

Fintech's development has amplified cybercrime, prompting trust and security concerns in banking. While earlier research predominantly viewed Fintech adoption through a tech-centric lens, emphasising its benefits, there is a paucity of studies on cognitive resistance arising from Fintech controversies.

Richard Apau ,Elzbieta Titis \* andHarjinderSingh Lallie

This paper expands the extended unified theory of acceptance and use of technology (UTAUT2) to include four additional constructs (security, risk, institutional trust, and technology trust), providing a more comprehensive understanding of mobile banking applications (m-banking apps) adoption

Shidrokh Goudarzi, Wan H Hassan, Mir Ali Rezazadeh Bae, and SA. Soleyman

The use of the Internet has increased dramatically over recent years and is now regarded as the best channel for distribution of products and services of various types of businesses, such as internet banking services. This paper extends an area of information systems research into a financial services context by looking into the element of trust in Internet banking.

Basavaraj

This paper seeks to explore the consumer trust and security in online banking. As online banking becomes increasingly prevalent, understanding the factors that underpin consumer trust and the mechanisms for ensuring security is crucial. Consumer trust in online banking is largely shaped by the reputation and reliability of financial institutions.

Rakesh Kumar 1 ,Rubeesingh2 1 , Kishore Kumar 3 , Shahbaz Khan 2 andVincenzoCorvello

The emergence of high-speed internet (5G) services and the demonetization of the Indian currency by the Government of India in the year 2016 served as catalysts for the growth of banking services, such as internet/mobile banking. The main objective of the study was to investigate the role of perceived financial cost, perceived risk, and trust in the adoption of mobile banking services by users.

Dharmendra Singh

Internet banking system and has tremendous impact on banks to spend large budget on building mobile base banking system. However the adoption rate of mobile banking applications is still underused than expected. As we recognized, in recent studies on mobile banking, there is good numbers of papers focusing on the adoption of mobile banking technology

Internet banking refers to the use of bank's website through which customers access their banking accounts, conduct financial transactions, and obtain general information on bank products and services. Downloaded by Taylor's University SDN BHD At 14:27 29 January 2015 (PT)

Vikram Kumar Sharma and Amit Kumar

In India, the e-commerce segment is still in its initial phase. With the government actively supporting the Digital India campaign, the banking sector poised to become more efficient and productive by adopting ICT enabled fintech technologies. The study aims to find the factors involved in developing the intention to Use online banking services.

Dr. Sajjan Choudhuri1\*, Prof. (Dr.) Ekta Rastogi2, Dr. Anju Singh3, Dr. Ritesh Ravi4, Dr. Badhusha M H N

The sustainability, expansion, and resilience of the digital banking ecosystem rely on consumer trust in online banking, which is not just desired but also vital. Banks can establish and foster trust by giving priority to security, transparency, and customer centricity.

Richard Apau ,Elzbieta Titis \* andHarjinderSingh Lallie

This paper expands the extended unified theory of acceptance and use of technology (UTAUT2) to include four additional constructs (security, risk, institutional trust, and technology trust), providing a more comprehensive understanding of mobile banking applications (m-banking apps) adoption.

Mr. Mihir Karekar and Dr. Harshada Mulay

India's banking sector has experienced significant changes in the past few years, influencing investment decisions and strategies. This research paper focuses at the investment implications in the Indian banking sector, emphasizing on the factors that drive investment, the risks and opportunities that exist, and the overall influence on the economy.



POONAM SHUKLA

Internet banking is about using the infrastructure for digital age to create opportunities, both in local & global market. In India a number of banks have either gone on internet banking or are on the verge of going for it.

Basavaraj

This paper seeks to explore the consumer trust and security in online banking. As online banking becomes increasingly prevalent, understanding the factors that underpin consumer trust and the mechanisms for ensuring security is crucial. Consumer trust in online banking is largely shaped by the reputation and reliability of financial institutions.

João M. Lopes<sup>1,2\*</sup>, Ilda Massano-Cardoso<sup>1,3</sup> and Lara Pedrosa<sup>1</sup>

The rapid expansion of technology, particularly artificial intelligence, has significantly challenged and transformed traditional banking channels. This transformation has led banks to rethink their service delivery models, shifting towards more digital and customer-centric approaches that emphasize convenience and personalization.

Dr. Sanesh PV, 2Mr. Sachin Shekar, 3Mrs. Kusum BN, 4Mr. Akash

Digital transformation has profoundly reshaped consumer behaviour in the banking industry by redefining service delivery mechanisms and customer interaction patterns. This study examines the influence of five dimensions—Digital Banking Service Quality, Perceived Security and Privacy, Convenience and Accessibility, Technological Innovation and Features, and Customer Experience and Engagement—on consumer behaviour in banking.

Allam Housni Mawlawi

It is hard to find an article dealing with online purchasing without mentioning in the first place the importance of trust as a major factor enabling or disabling users to accomplish their operations safely. The expansion of e-commerce and e-business is related to a diversity of factors that enhance the intension and create the will of online banking.

Siti Nur Najwa Sufana Binti Mohd Nor

– This paper presents a qualitative study on mobile banking technology acceptance by the Malaysian. The number of the mobile phone users has long exceeded the number of people with bank accounts across the world. The purpose of this paper is to determine the factors that will affect the customer trust towards mobile banking in Malaysia.

## RESEARCH METHODOLOGY

### • RESEARCH DESIGN

The research follows a descriptive research design, as it aims to describe and analyze the current practices, perceptions, and challenges related to mobile/online banking usage. This design is suitable for understanding user attitudes toward trust, security, convenience, and continued usage of digital banking services.

### • SAMPLING TECHNIQUE

The study follows a non-probability convenience sampling method. Respondents were selected based on their accessibility and willingness to participate. A total of 150 respondents who use mobile/online banking services were included in the study. This sampling method was considered suitable due to time and resource constraints.

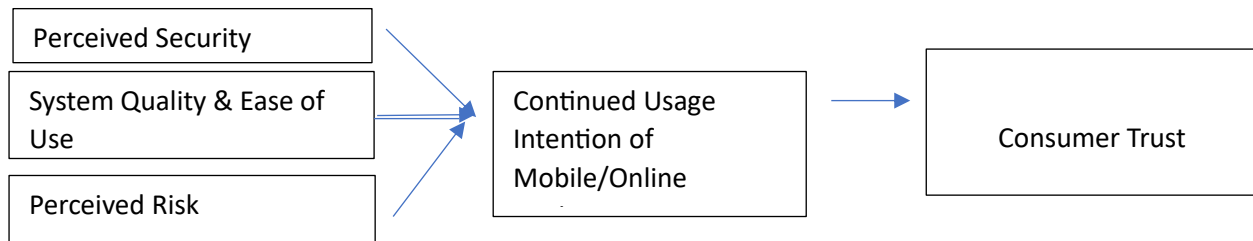
### • DATA COLLECTION METHOD

The study is based on primary data, collected using a structured questionnaire.

- The questionnaire consisted of close-ended questions measured on a Likert scale.
- It covered aspects such as security, trust, ease of use, perceived risk, and intention to continue using mobile/online banking. Secondary data were collected from journals, research articles, books, and online sources to support the study.



**CONCEPTUAL FRAMEWORK**



**STATEMENT OF THE PROBLEM**

The rapid growth of mobile and internet banking has significantly changed the way banking services are delivered and used. Although digital banking platforms offer convenience, speed, and easy accessibility, their adoption and continued usage remain lower than expected, especially among certain customer groups. A major reason for this gap is the lack of adequate consumer trust in mobile banking systems.

**Research gaps**

- Limited focus on post-adoption trust
- Fragmented analysis of trust factors
- Insufficient evidence from the Indian context
- Neglect of demographic moderating effects
- Limited practical insights for trust-building strategies

**Objectives**

- To understand the overall concept and importance of the study topic.
- To analyse the current practices related to the subject area.
- To identify key challenges or problems faced in the selected field.

**Hypothesis**

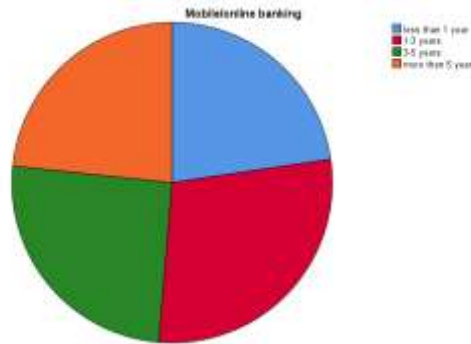
- H1:** Consumer trust has a significant impact on the adoption and continued use of mobile banking services.
- H0<sub>1</sub>:** Consumer trust does not have a significant impact on the adoption and continued use of mobile banking services.
- H2:** Current mobile banking practices related to security, privacy, and system quality significantly influence consumer trust.
- H0<sub>2</sub>:** Current mobile banking practices related to security, privacy, and system quality do not significantly influence consumer trust.
- H3:** Perceived security risks, privacy concerns, and usability issues significantly affect consumer trust in mobile banking services.
- H0<sub>3</sub>:** Perceived security risks, privacy concerns, and usability issues do not significantly affect consumer trust in mobile banking services.

**DATA ANALYSIS AND INTERPRETATION**

To understand the overall concept and importance of the study topic

**Mobile/online banking**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	less than 1 year	34	22.7	22.7	22.7
	1-3 years	43	28.7	28.7	51.3
	3-5 years	38	25.3	25.3	76.7
	more than 5 years	35	23.3	23.3	100.0
	Total	150	100.0	100.0	



**INTERPRETATION**

The majority of respondents have considerable experience with mobile/online banking. About 77.3% have been using it for more than one year, indicating widespread adoption and familiarity. The largest group (28.7%) has 1–3 years of experience, while 22.7% are new users with less than one year of usage. Overall, the data reflects growing acceptance and continued use of mobile/online banking services.

To analyse the current practices related to the subject area

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I feel that my online/mobile banking transactions are secure	35.54	27.633	.088	.058	.133
I trust my bank to handle my online transactions safely.	35.52	27.500	.084	.028	.135
My bank provides strong security features such as OTP, biometrics, or passwords.	35.49	27.916	.073	.139	.141
My bank protects my personal and financial information effectively.	35.43	29.334	-.046	.100	.202
The mobile/online banking app is easy to use	35.51	27.460	.090	.059	.132
The app works smoothly without technical errors.	35.48	27.580	.097	.048	.129
The app provides clear and accurate information	35.60	26.805	.133	.145	.109
I sometimes fear making mistakes while using online/mobile banking	35.46	29.391	-.040	.132	.197
I worry about fraud or unauthorized access to my account.	35.72	28.136	.067	.135	.144
Online/mobile banking saves me time and effort.	35.58	27.762	.078	.146	.138
Online banking is more convenient than visiting the bank branch.	35.59	30.110	-.080	.135	.214



I intend to continue using online/mobile banking in the future.*	35.59	29.237	-.033	.110	.194
I would recommend online/mobile banking to others.	35.50	26.896	.139	.153	.108

**INTERPRETATION**

The Item–Total Statistics indicate that most statements show very low corrected item–total correlations, with several items having negative values, suggesting weak internal consistency among the items. This implies that some statements are not measuring the same underlying construct effectively.

Items related to data protection, fear of mistakes, convenience, and intention to continue usage show negative or very low correlations, indicating they may not align well with the overall scale.

**To identify key challenges or problems faced in the selected field**

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
38.50	30.869	5.556	13

**INTERPRETATION**

The scale consists of 13 items with a mean score of 38.50 and a standard deviation of 5.556, indicating moderate variation in respondents’ perceptions. The item–total correlations are generally low, and a few items show negative correlations, suggesting they may not align well with the overall construct. The Cronbach’s Alpha if item deleted values indicate that removing certain negatively correlated items could improve internal consistency. Overall, the results suggest that the scale shows weak reliability and may require item refinement or removal to improve consistency and measurement accuracy.

**FINDINGS**

**Trust and Security:** Respondents indicated that higher security measures (OTP, biometrics, passwords) positively influence their trust in mobile banking.

**System Quality:** Ease of use, smooth app performance, and accurate information enhance user confidence and satisfaction.

**Privacy Concerns:** Protection of personal and financial data is crucial; users with higher privacy concerns tend to show more cautious adoption.

**Experience and Usage:** Most respondents (77.3%) have more than one year of mobile banking experience, reflecting growing acceptance and familiarity.

**Continued Usage:** Trust strongly mediates the relationship between security, system quality, and continued usage intention, highlighting its importance in long-term adoption.

**LIMITATIONS**

**Sample Size:** The study is limited to 150 respondents, which may not represent the broader population of mobile banking users in India.

**Geographic Scope:** The research may be region-specific and may not account for variations in urban vs. rural usage patterns.

**Self-Reported Data:** Responses may be subject to bias or inaccuracies due to personal perceptions.

**CONCLUSION**

The study confirms that trust is a critical factor influencing the adoption and continued use of mobile/online banking services. Perceived security, system quality, and privacy protection significantly shape consumer confidence. Banks should focus on enhancing technical features, safeguarding data, and providing clear, accurate information to strengthen trust. Despite limitations, the research provides valuable insights for financial institutions aiming to improve user experience, ensure security, and foster long-term engagement in digital banking.



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